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1 EXECUTIVE SUMMARY
Conclusions and policy implications

WORLD DRUG REPORT 2019

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PREFACE

The findings of this year's *World Drug Report* fill in and further complicate the global picture of drug challenges, underscoring the need for broader international cooperation to advance balanced and integrated health and criminal justice responses to drug supply and demand.

With improved research and more precise data from India and Nigeria – both among the 10 most-populous countries in the world – we see that there are many more opioid users and people with drug use disorders than previously estimated. Globally, some 35 million people, up from an earlier estimate of 30.5 million, suffer from drug use disorders and require treatment services. The death toll is also higher: 585,000 people died as a result of drug use in 2017.

Prevention and treatment continue to fall far short of needs in many parts of the world. This is particularly true in prisons, where those incarcerated are especially vulnerable to drug use and face higher risks of HIV and hepatitis C transmission. This gap represents a major impediment to achieving the Sustainable Development Goals and fulfilling the international community's pledge to leave no one behind.

Synthetic opioids continue to pose a serious threat to health, with overdose deaths rising in North America and trafficking in fentanyl and its analogues expanding in Europe and elsewhere. The opioid crisis that has featured in far fewer headlines but that requires equally urgent international attention is the non-medical use of the painkiller tramadol, particularly in Africa. The amount of tramadol seized globally reached a record 125 tons in 2017; the limited data available indicate that the tramadol being used for non-medical purposes in Africa is being illicitly manufactured in South Asia and trafficked to the region, as well as to parts of the Middle East.

The response to the misuse of tramadol illustrates the difficulties faced by countries in balancing necessary access for medical purposes while curbing abuse – with limited resources and health-care systems that are already struggling to cope – and at the same time clamping down on organized crime and trafficking.

Opium production and cocaine manufacture remain at record levels. The amounts intercepted are also higher than ever, with the amount of cocaine seized up 74 per cent over the past decade, compared with a 50 per cent rise in manufacture during the same period. This suggests that law enforcement efforts have become more effective and that strengthened international cooperation may be helping to increase interception rates.

The *World Drug Report 2019* also registers a decline in opiate trafficking from Afghanistan along the "northern" route through Central Asia to the Russian Federation. In 2008, some 10 per cent of the morphine and heroin intercepted globally was seized in countries along the northern route; by 2017 it had fallen to 1 per cent. This may be due in part to a shift in demand to synthetics in destination markets. The increased effectiveness of regional responses may also play a role.

Countries in central Asia, with the support of the United Nations Office on Drugs and Crime (UNODC), have committed considerable resources to strengthening regional cooperation through integrated UNODC country, regional and global programmes, as well as through platforms such as the Central Asian Regional Information and Coordination Centre, the Afghanistan–Kyrgyzstan–Tajikistan Initiative and the Triangular Initiative and its Joint Planning Cell. More research is needed, including to identify lessons learned and best practices that could inform further action.

International cooperation has also succeeded in checking the growth in new psychoactive substances. The Vienna-based Commission on Narcotic Drugs has acted swiftly in recent years to schedule the most harmful new psychoactive substances, and the UNODC early warning advisory has helped to keep the international community abreast of developments.

Political will and adequate funding remain prerequisites for success. Efforts by Colombia to reduce cocaine production following the 2016 peace deal

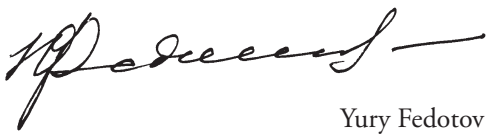
with the Revolutionary Armed Forces of Colombia (FARC) are a case in point. Alternative development initiatives have enabled farmers in central areas of the country previously under FARC control to abandon coca bush cultivation and join the licit economy. The result has been a drastic reduction in cocaine production. However, in other areas previously controlled by FARC, criminal groups have moved in to fill the vacuum and expand cultivation. Alternative development can succeed, but not without sustained attention and integration into broader development goals.

The successes identified amid the many, formidable problems that countries continue to face in grappling with drug supply and demand highlight that international cooperation works. The challenge before us is to make this cooperation work for more people.

International cooperation is based on agreed frameworks. Nearly every country in the world has reaffirmed its commitment to balanced, rights-based action based on the international drug control conventions. The most recent reaffirmation of that commitment is the Ministerial Declaration on Strengthening Our Actions at the National, Regional and International Levels to Accelerate the Implementation of Our Joint Commitments to Address and Counter the World Drug Problem, adopted at the ministerial segment of the sixty-second session of the Commission on Narcotic Drugs.

UNODC supports countries in putting their commitments into action through the application of international standards on the prevention and treatment of drug use disorders and HIV, as well as standards and norms on the administration of justice and the treatment of prisoners. We provide tailored technical assistance through our field offices and global programmes, and through toolkits and research.

I hope the *World Drug Report 2019* will shed further light on the world drug problem and inform international community responses. By working together and focusing attention and resources, we can help people get the services they need without discrimination, promote security and bring criminals to justice, safeguard health and achieve the Sustainable Development Goals.



Yury Fedotov
Executive Director
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EXPLANATORY NOTES

The boundaries and names shown and the designations used on maps do not imply official endorsement or acceptance by the United Nations. A dotted line represents approximately the line of control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Disputed boundaries (China/India) are represented by crosshatch owing to the difficulty of showing sufficient detail.

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Countries and areas are referred to by the names that were in official use at the time the relevant data were collected.

All references to Kosovo in the *World Drug Report*, if any, should be understood to be in compliance with Security Council resolution 1244 (1999).

Since there is some scientific and legal ambiguity about the distinctions between "drug use", "drug misuse" and "drug abuse", the neutral term "drug use" is used in the *World Drug Report*. The term "misuse" is used only to denote the non-medical use of prescription drugs.

All uses of the word "drug" and the term "drug use" in the *World Drug Report* refer to substances controlled under the international drug control conventions, and their non-medical use.

All analysis contained in the *World Drug Report* is based on the official data submitted by Member States to the UNODC through the annual report questionnaire unless indicated otherwise.

The data on population used in the *World Drug Report* are taken from: *World Population Prospects: The 2017 Revision* (United Nations, Department of Economic and Social Affairs, Population Division).

References to dollars ($) are to United States dollars, unless otherwise stated.

References to tons are to metric tons, unless otherwise stated.

The following abbreviations have been used in the present booklet:

CBD	cannabidiol
DALYs	disability-adjusted life years
DMT	dimethyltryptamine
FARC	Revolutionary Armed Forces of Colombia
HIV	human immunodeficiency virus
LSD	lysergic acid diethylamide
NPS	new psychoactive substances
PCP	phencyclidine
PWID	people who inject drugs
THC	tetrahydrocannabinol
UNAIDS	Joint United Nations Programme on HIV and AIDS
UNODC	United Nations Office on Drugs and Crime

EXECUTIVE SUMMARY

LATEST TRENDS

Improved data sharpen understanding of the extent of drug use globally

Number of people using drugs is 30 per cent higher than in 2009

In 2017, an estimated 271 million people, or 5.5 per cent of the global population aged 15–64, had used drugs in the previous year. While that figure is similar to the 2016 estimate, a longer-term view reveals that the number of people who use drugs is now 30 per cent higher than it was in 2009, when 210 million had used drugs in the previous year.

Although that increase was in part due to a 10 per cent growth in the global population aged 15–64, data now show a higher prevalence of the use of opioids in Africa, Asia, Europe and North America and of the use of cannabis in North America, South America and Asia. The most widely used drug worldwide continues to be cannabis, with an estimated 188 million people having used the drug in the previous year. The prevalence of cannabis use has remained broadly stable at the global level for a decade, even with the rising trends in the Americas and Asia.

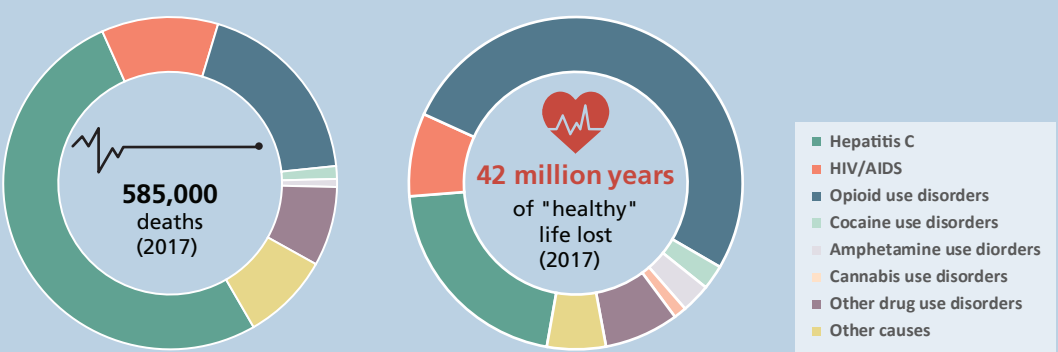
New surveys in India and Nigeria alter the picture of global drug use – the number of opioid users and the number of people suffering from drug use disorders globally are much higher than previously thought

In 2017, some 53.4 million people worldwide had used opioids in the previous year, 56 per cent higher than the estimate for 2016. Among those people, 29.2 million had used opiates such as heroin and opium, 50 per cent higher than the 2016 estimate of 19.4 million.

The higher estimates in 2017 are the result of improved knowledge of the extent of drug use from new surveys conducted in two highly populated countries, namely India and Nigeria. In Asia, the number of past-year users of opioids is now thought to be higher, at 29.5 million, than the previous estimate of 13.6 million. In Africa, the survey data from Nigeria led to a revision of the number of past-year users of opioids to 6.1 million, compared with the previous estimate of 2.2 million.

Overall, North America continues to be the subregion with the highest annual prevalence of opioid use, with 4.0 per cent of the population using opioids. The Near and Middle East and South-West Asia is the subregion with the highest annual prevalence of opiate use (opium, morphine and heroin),

Hepatitis C and opioid use disorders are responsible for most of the deaths and disability attributed to the use of drugs



Sources: Institute for Health Metrics and Evaluation, "Global Burden of Disease Study 2017", Global Health Data Exchange.

at 1.6 per cent of the population. However, in terms of numbers of users, 35 per cent of the global opioid users and almost half of all opiate users worldwide reside in South Asia.

With the new information from India and Nigeria, the number of people who are thought to suffer from drug use disorders is now estimated to be 35.3 million. This number is 15 per cent higher than the previous estimate of 30.5 million. The term "people with drug use disorders" designates people whose drug use is harmful to the point where they may experience drug dependence and/or require treatment.

Cocaine production and seizures reach record highs

Cocaine production reaches record level amid transition in Colombia

Estimated global illicit manufacture of cocaine reached an all-time high of 1,976 tons (estimated as 100 per cent pure) in 2017, an increase of 25 per cent on the previous year. This was mainly driven by increases in cocaine manufacture in Colombia, which produced an estimated 70 per cent of the world's cocaine. Colombia experienced a 17 per cent expansion in the area under coca bush cultivation in 2017, and a 31 per cent rise in the amount of cocaine produced, mainly due to a marked rise in the productive areas under coca bush cultivation.

The Colombian Government's 2016 peace deal with the Revolutionary Armed Forces of Colombia (FARC) has helped to drastically reduce cocaine production in central areas of the country, where farmers in areas previously controlled by FARC have abandoned cultivation. But in other areas previously controlled by FARC, criminal groups have moved in to continue and expand coca bush cultivation.

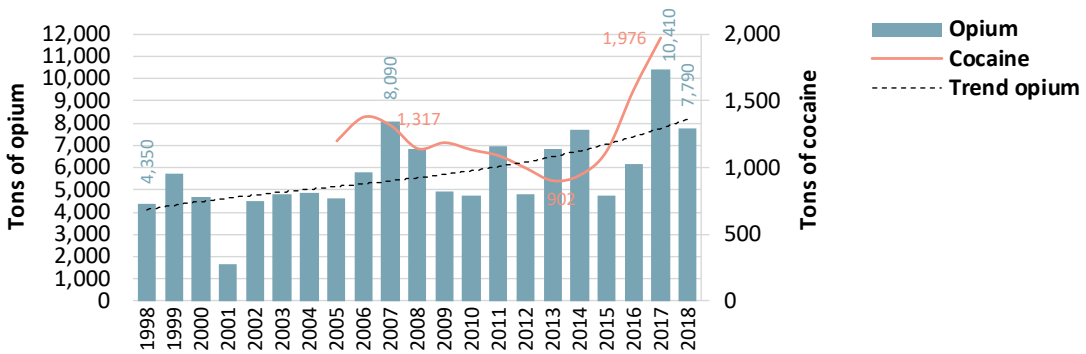
A third dynamic in Colombia saw entirely new areas given over to coca bush cultivation during 2016, reflected in the production data for 2017. These areas are often far away from major cities, making it difficult for the central authorities to provide incentives to farmers to stop cultivation. Also, a reduction in eradication efforts might have fostered the idea that cultivation was relatively risk-free.

Record seizures help to keep cocaine supply in check

The global quantity of cocaine seized in 2017 increased to 1,275 tons – the largest quantity ever reported, and an increase on the previous year of 13 per cent. While cocaine seizures have risen by 74 per cent over the past decade, production has risen by 50 per cent.

Overall, the interceptions mean that the amount of cocaine available for consumption has increased at a slower rate than has manufacture. This suggests that at the global level, law enforcement efforts and international cooperation have likely become more

Global opium production and cocaine[a] manufacture, 1998–2018



Sources: UNODC, Coca and opium surveys in various countries; responses to the annual report questionnaire; and United States of America, Department of State, *International Narcotics Control Strategy Report*, various years.

[a] *Expressed at a hypothetical manufacturing output level of 100 per cent pure cocaine; actual cocaine manufacturing output, unadjusted for purity, is significantly higher.*

effective with the interception of a larger share of cocaine products than in the past.

The bulk of cocaine seizures are in the Americas, which accounted for almost 90 per cent of the global total in 2017. Interception close to the source of manufacture is significant; Colombia alone intercepted 38 per cent of the global total in 2017.

Cocaine use is on the rise in North America and Western and Central Europe

An estimated 18.1 million people used cocaine in the past year, with the highest rates reported in North America (2.1 per cent) and Oceania (1.6 per cent). North America had seen a decline in cocaine use between 2006 and 2012, but there are now signs of an increase, as there are in Western and Central Europe, Oceania and some South American countries. In parts of Asia and West Africa, increasing amounts of cocaine have been reported to be seized, which suggests that cocaine use could potentially increase, especially among affluent, urban dwellers in subregions where use had previously been low.

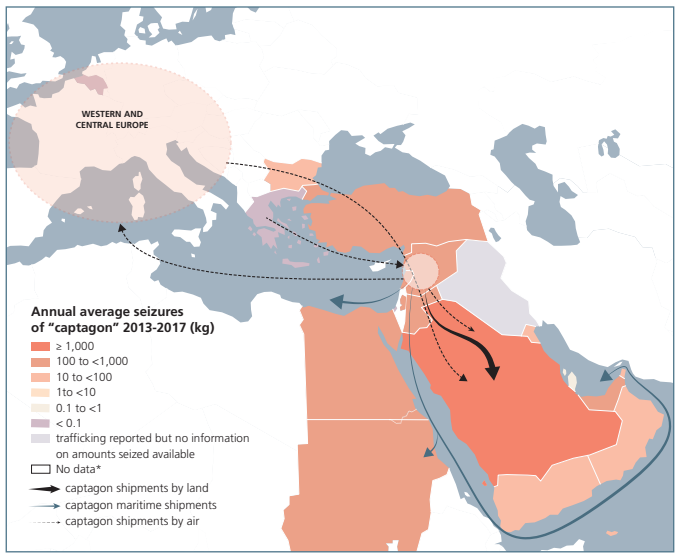
Methamphetamine use causes rising concern across several regions

South-East Asia emerges as the world's fastest-growing methamphetamine market

Quantities of methamphetamine seized in East and South-East Asia rose more than eightfold between 2007 and 2017 to 82 tons – 45 per cent of global seizures. Preliminary data for 2018 indicate a further steep increase to roughly 116 tons. The 2018 figures suggest that Thailand may have overtaken China in terms of methamphetamine seized, particularly of methamphetamine tablets. Some 745 million methamphetamine tablets were reported seized in East and South-East Asia in 2018, 515 million of them in Thailand. A geographical shift in the manufacture and trafficking of methamphetamine has taken place recently, from China to other countries in the subregion.

Information on methamphetamine use in South-East Asia is sparse. Most countries in South-East Asia report methamphetamine as the main drug of concern in treatment. In countries in the subregion with recent data, annual prevalence of methamphetamine use ranges between 0.5 and 1.1 per cent, which is rather high compared with the global average. There are also signs of an increase in crystalline methamphetamine use in South-East Asia.

Reported seizures and trafficking routes of "captagon" tablets, 2013–2017



Sources: UNODC, annual report questionnaire data; International Narcotics Control Board (INCB); Heads of National Law Enforcement (HONLEA) reports; Bureau of International Narcotics and Law Enforcement Affairs, *International Narcotics Control Strategy Reports*; EMCDDA, *Captagon: understanding today's illicit market*, EMCDDA Papers, October 2018; Republique Française, Ministère de L'Action et des Comptes Publics, Douane et Droits Indirect, *Premières saisies de captagon en France - 750 000 comprimés à Roissy*, 30 Mai 2017.

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** Boundaries are not displayed for adjacent countries or territories with no available data.*

Potential harm from methamphetamine use is on the rise in North America

North America is the subregion with the highest prevalence of the use of amphetamines (amphetamine and methamphetamine), at 2.1 per cent of the population aged 15-64. While the non-medical use of pharmaceutical stimulants is more prevalent in North America, a significant number of people also use methamphetamine.

People using methamphetamine tend to be more frequent and more intense users than those who misuse pharmaceutical stimulants, and they face potentially more damaging consequences. For instance, the number of overdose deaths attributed to the use of psychostimulants including methamphetamine has risen considerably in the United States, from 1,300 cases in 2007 to more than 10,000 in 2017; this increase was led by the concurrent involvement of synthetic opioids (fentanyls) in those deaths.

Synthetic opioid markets boom despite associated adverse health consequences

North America's synthetic opioid overdose crisis reached new heights in 2017

North America has seen a rising number of overdose deaths resulting from the use of opioids. More than 47,000 opioid overdose deaths were recorded in the United States in 2017, an increase of 13 per cent from the previous year. Those deaths were largely attributed to synthetic opioids such as fentanyl and its analogues, which were involved in nearly 50 per cent more deaths than in 2016. In Canada, nearly 4,000 opioid-related deaths were reported in 2017, a 33 per cent increase from the 3,000 overdose deaths reported in 2016. Fentanyl or fentanyl analogues were involved in 69 per cent of those deaths in 2017, compared with 50 per cent in 2016.

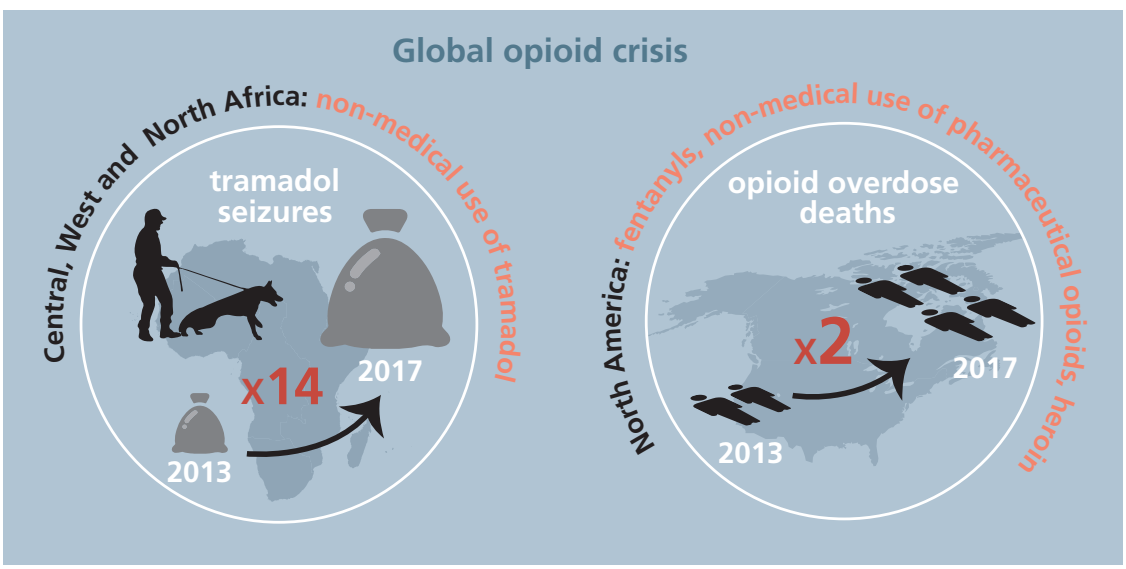
Trafficking in fentanyl and its analogues rises and expands outside North America

North America is the principal market for fentanyls, but seizure data suggest that trafficking has expanded worldwide. While just four countries reported fentanyl seizures to UNODC in 2013, 12 countries did so in 2016 and 16 countries in 2017.

Europe hosts a small but growing market for fentanyls. Seizures or use have been reported in most European countries. In Western and Central Europe, seizures have risen from 1 kg in 2013 to 5 kg in 2016 and 17 kg in 2017. The substances are often sold on the Internet, sometimes as "legal" replacements for controlled opioids.

Tramadol: the other opioid crisis in low- and middle-income countries

West and Central and North Africa are currently experiencing a crisis of another synthetic opioid: tramadol, which has been used as a painkiller for decades. Limited information on the supply of tramadol for non-medical use points to tramadol being (illicitly) manufactured in South Asia and trafficked to African countries and parts of the Middle East.



Global seizures of tramadol rose from less than 10 kg in 2010 to almost 9 tons in 2013 and reached a record high of 125 tons in 2017. New data from Nigeria suggest the problem is greater than previously thought. The national drug use survey conducted in 2017 shows that 4.7 per cent of the population aged 15–64 reported the non-medical use of prescription opioids in the previous year, with tramadol being by far the most common opioid misused.

Rapidly growing numbers of synthetic opioid new psychoactive substances emerging on the market

The number of new psychoactive substances (NPS) that are synthetic opioids, mostly fentanyl analogues, reported on the market has been rising at an unprecedented rate. It rose from just 1 substance in 2009 to 15 in 2015 and 46 in 2017, while the overall number of NPS present on the market stabilized at around 500 substances per year over the period 2015–2017.

Synthetic opioids have become the second most important substance group, after stimulants, in terms of NPS reported for the first time. The group accounted for 29 per cent of the newly identified NPS in 2017.

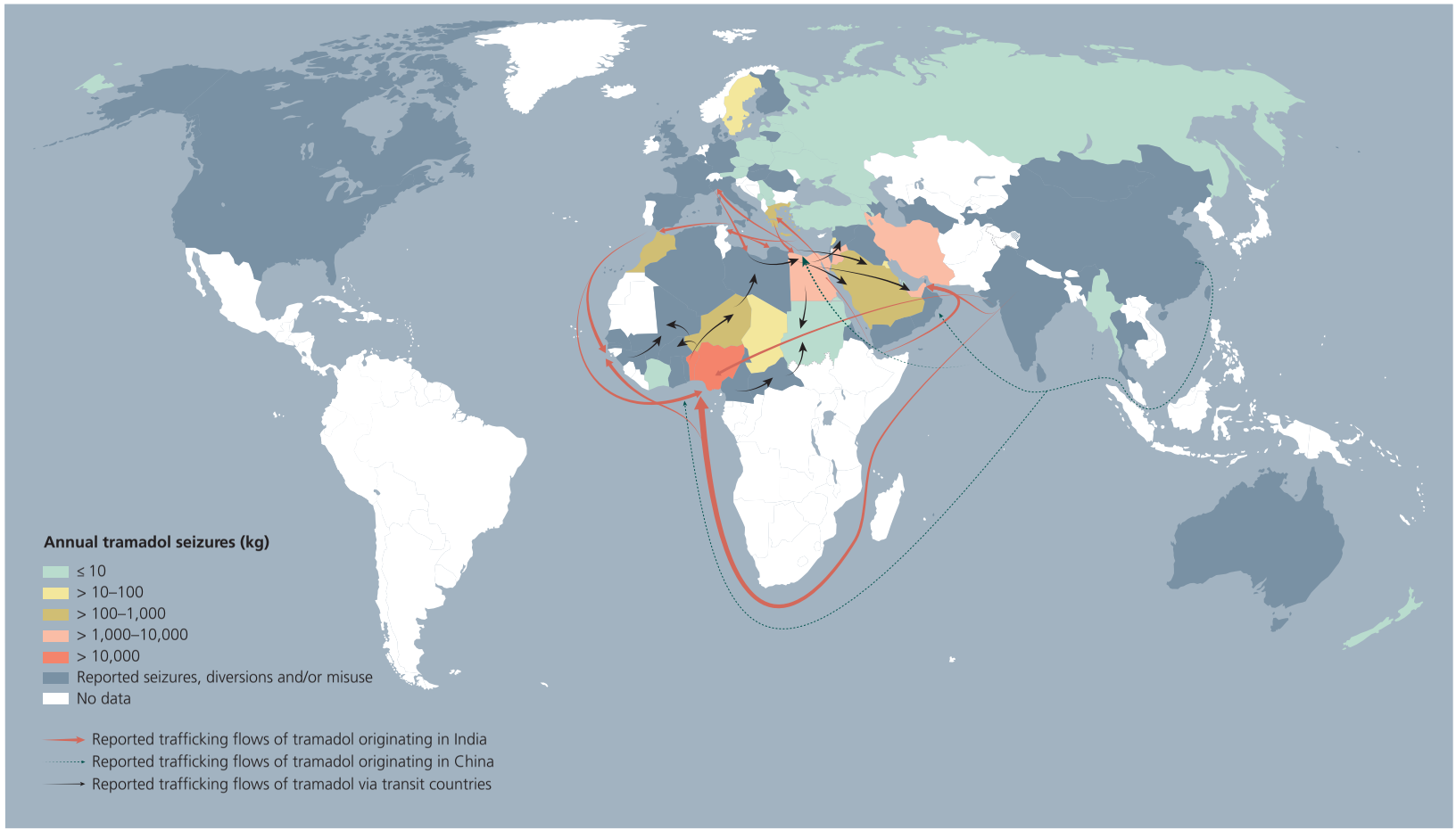
Heroin still reaching the market despite declining opium production and rising seizures

Drought in Afghanistan causes decline in cultivation and production of opium in 2018

Afghanistan was again the country responsible for the vast majority of the world's illicit opium poppy cultivation and opium production in 2018. The 263,000 ha under cultivation in Afghanistan in 2018 dwarfs cultivation in nearest rivals Myanmar (37,300 ha in 2018) and Mexico (30,600 ha in 2016/17).

Overall, the global area cultivated fell by some 17 per cent in 2018 to 346,000 ha, largely as a result of a drought in Afghanistan. Also, opium prices in Afghanistan fell rapidly between 2016 and 2018, probably because of overproduction in previous

Reported seizures, diversion and trafficking routes of tramadol (based on reported seizures), 2013–2017



Sources: UNODC, annual report questionnaire data; International Narcotics Control Board, Report 2018 (and previous years); Heads of National Law Enforcement Agency report 2018 (and previous years); World Health Organization, Expert Committee on Drug Dependence, Thirty-sixth Meeting, Geneva, 16–20 June 2014; Bureau for International Narcotics and Law Enforcement Affairs, *International Narcotics Control Strategy Report 2019* (and previous years).

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years, making the crop less lucrative for farmers. However, the area under cultivation today is more than 60 per cent larger than it was a decade ago and the estimated cultivation area in Afghanistan in 2018 is the second largest estimate ever.

Global production of opium was even more affected than was cultivation by the drought in Afghanistan, which produced 82 per cent of the world's opium in 2018. After an upward trend over the last two decades, global production fell by 25 per cent from 2017 to 2018, to some 7,790 tons. Despite that drop, the amount of opium produced was the third largest amount since UNODC started to systematically monitor opium production in the 1990s.

Opiate seizures increase to record levels

Quantities of opiates seized globally again reached an all-time high in 2017. Some 693 tons of opium were seized, which was five per cent more than in the previous year. In addition, 103 tons of heroin were intercepted, 13 per cent more than in 2016, and 87 tons of morphine, a 33 per cent rise. Expressing these seizures in common heroin equivalents, heroin seizures exceed those of morphine and opium.

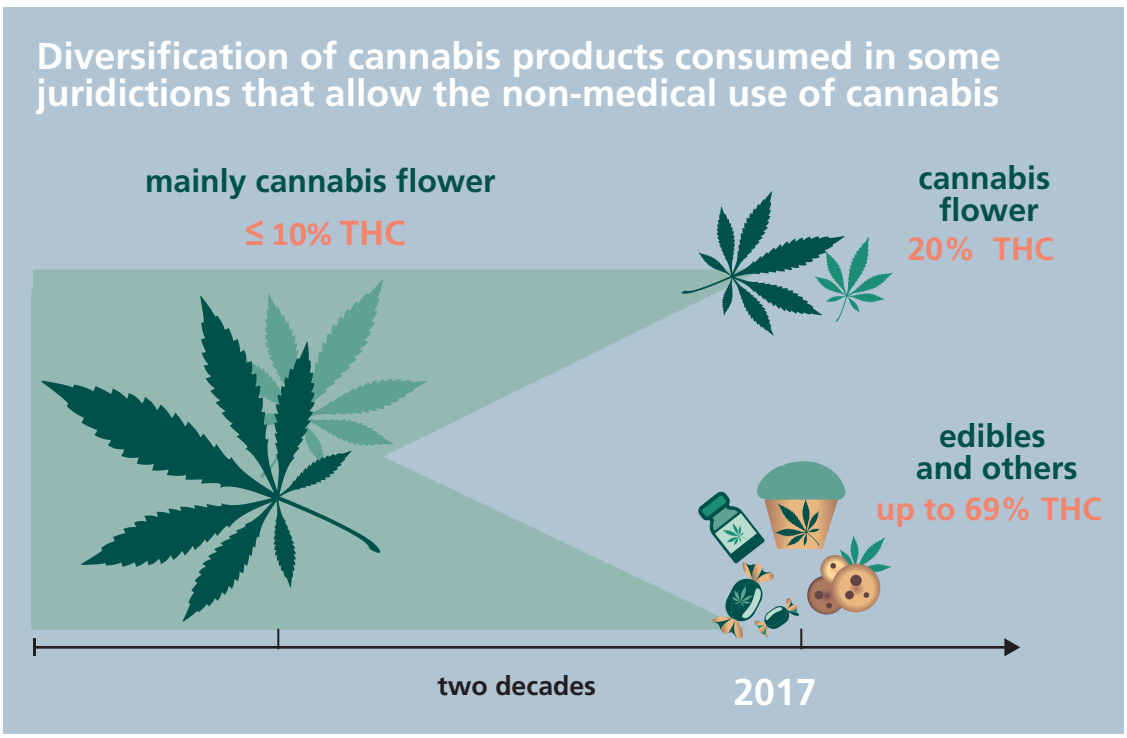
Some 86 per cent of all opiates seized in 2017 were intercepted in Asia, the region that accounts for more than 90 per cent of global illicit opium production.

Global interceptions of heroin have increased at a faster pace than production, suggesting a likely increase in the efficiency of law enforcement efforts and international cooperation.

Cannabis market undergoes transition amid changes in legal status in some countries

Interception of cannabis herb appears less of a priority in North America despite continued existence of illicit market

The Americas continue to account for the largest share of cannabis herb seizures. South America accounted for 38 per cent of the global total in 2017, and North America for 21 per cent. However, in



Based on Orens and others, "Market size and demand for marijuana in Colorado".

previous years, it had been North America leading the way. Seizures of cannabis in North America are in long-term decline – down 77 per cent from the level in 2010. This is reflected in data on global seizures, which are 20 per cent lower than in 2016.

The decline in seizures in North America has been accompanied by a rise in the non-medical use of cannabis in a context in which measures legalizing the non-medical use of cannabis were implemented in some jurisdictions.

Despite the aim of preventing criminals from generating profits from the illicit trade in cannabis, residual illicit cannabis markets continue to exist in many of the states that have legalized the non-medical use of the drug. This is especially evident in Colorado and the State of Washington, which were among the first jurisdictions to allow such measures, in 2012. In California, the initial attempts to license the sale of cannabis in 2018 resulted in prices that were higher than in the illicit market and thus failed to entice users away from the illicit market.

Intensity of cannabis use has been increasing in the context of cannabis legalization

While more people are using cannabis in North America than they were a decade earlier, the increase has been more pronounced in the regular (non-medical) use of the drug. For instance, in the United States, the number of past-year users of cannabis rose by some 60 per cent between 2007 and 2017, while the number of daily or nearly daily users of cannabis more than doubled over the period. This group of regular users accounts for the largest share of the cannabis consumed.

Cannabis products have diversified and increased in potency since legalization

In Colorado, while the potency (tetrahydrocannabinol (THC) level) of cannabis flower has remained lower than that of cannabis concentrates (20 per cent versus 69 per cent, in 2017), the potency of both product types increased by about 20 per cent over the period 2014–2017.

The market for cannabis concentrates has also evolved rapidly, with a wide range of products now available, each with varying levels of THC, although the proportion of tested cannabis concentrates that contain over 75 per cent THC has increased fivefold in recent years. There is also an increase in Colorado in the demand for non-flower products such as oil-filled vaporizer cartridges, wax/shatter concentrates and infused edibles.

LAW ENFORCEMENT

Authorities make inroads into hard-to-reach drug markets

Control of "legal highs" helps to snuff out emerging drug markets

The NPS market is diverse and dynamic, with new substances being synthesized regularly and often sold as "legal highs" – as alternatives to, or mixed with, controlled substances. Despite this, very few NPS have established a long-term niche for themselves.

Some evidence suggests that legal changes aimed at controlling NPS may have discouraged their use among the general population, although they have established themselves among small subpopulation groups. There was a marked general decline in the use of "bath salts" (mostly synthetic cathinones) among young people in the United States after the sale of such stimulants was outlawed in 2011. Also, in the United Kingdom, use of mephedrone, another cathinone, declined sharply in the years after it was placed under national control in 2010.

Initial drops in drug sales on the darknet after AlphaBay take-down

In mid-2017, law enforcement agencies took down AlphaBay, one of the world's biggest markets for drugs on the darknet. They also infiltrated another prominent marketplace, Hansa, and kept it running to gather data before shutting it down. More recently, extensive undercover operations led to the take-down in April 2019 of Wall Street Market, at that time the world's second largest darknet market after Dream Market, which announced its shutdown for the end of the same month.

Some of those who bought drugs on the darknet changed their behaviour after the take-downs, with 15 per cent of customers saying they used the

darknet less frequently and 9 per cent saying they had completely stopped using the darknet as of January 2018. Online surveys point to a potential decline in the proportion of users purchasing drugs on the darknet in 2018, notably in North America, Oceania and Latin America.

Hallucinogen trafficking is more geographically clustered than trafficking in other drug types

East and South-East Asia continues to provide the biggest markets for ketamine

Ketamine, a substance not under international control, accounts for 87 per cent of the quantity of hallucinogens seized in the last five years – although a typical dose of ketamine is far larger than a typical dose of lysergic acid diethylamide (LSD). If calculated in terms of doses rather than by weight, LSD would account for 95 per cent of the hallucinogens seized in the past 20 years.

Over the period 2013–2017, 96 per cent of all ketamine quantities seized worldwide were reported by authorities in Asia, mostly in East and South-East Asia. However, ketamine trafficking appears to be spreading to other regions, including Europe, the Americas and Oceania.

LSD and other hallucinogens are mostly intercepted in North America

Some 88 per cent of seizures of hallucinogens other than ketamine were carried out in the Americas over the period 2015–2017. These operations were mostly carried out by law enforcement authorities in the United States.

In terms of weight, the most frequently intercepted substance in this group at the global level was phencyclidine (PCP), also known by its street name "angel dust", which accounted for 44 per cent of the total quantity of hallucinogens seized between 2011 and 2017. However, dimethyltryptamine (DMT) started to dominate global seizures of hallucinogens (excluding ketamine) in 2016 and 2017.

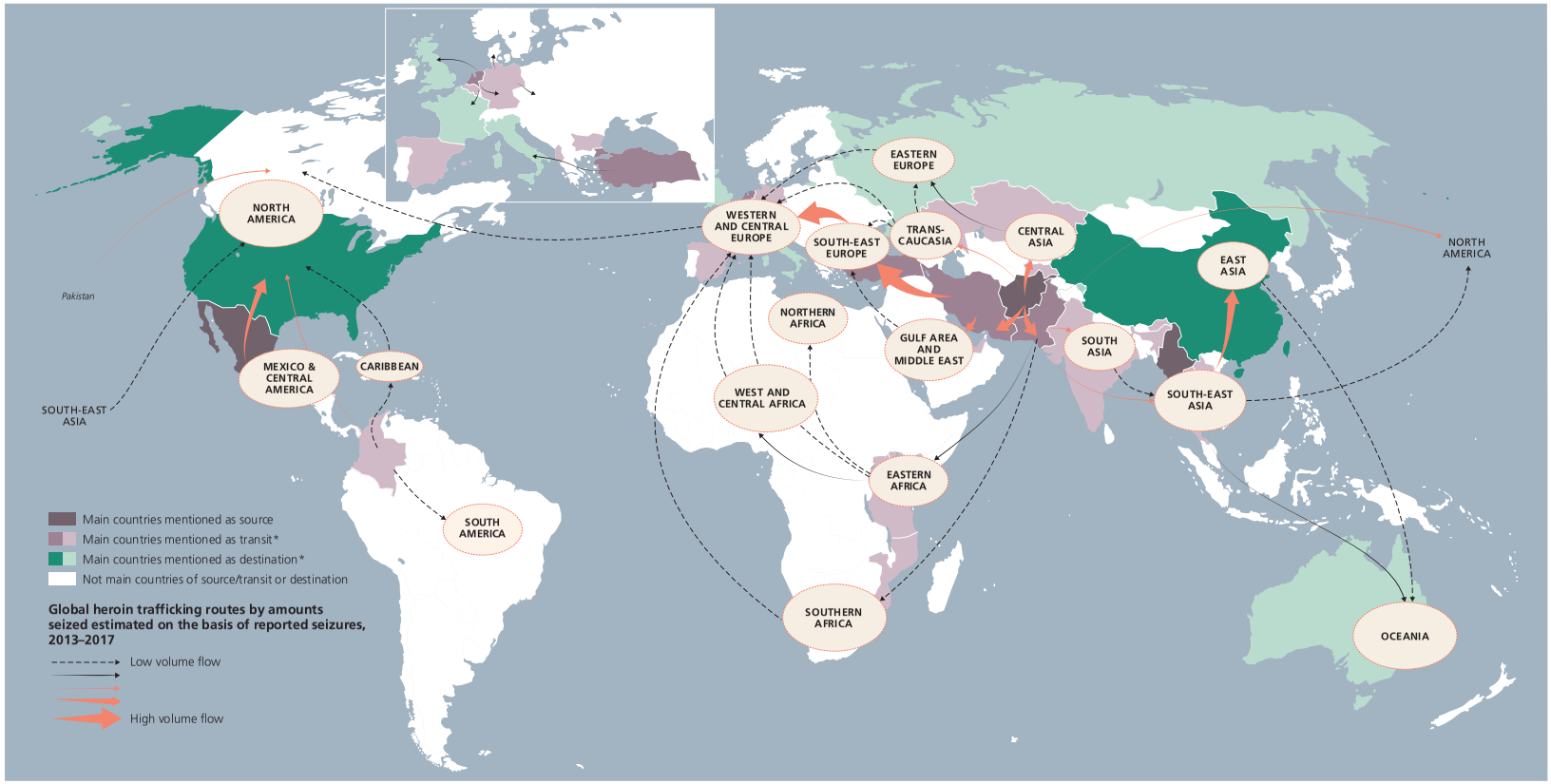
Complex global smuggling networks underpin heroin and cocaine markets

The Balkan route remains the world's busiest heroin trafficking channel

The world's single largest heroin trafficking pathway continues to be the Balkan route, which sees drugs smuggled from Afghanistan through the Islamic Republic of Iran, Turkey and the Balkan countries and on to various destinations in Western and Central Europe. Seizures made by countries along the Balkan route accounted for 47 per cent of global quantities of heroin and morphine seized outside Afghanistan in 2017.

Other routes take heroin out of Afghanistan via Pakistan to South Asia or Africa (the southern route), or through Central Asia to markets in the Russian Federation (the northern route). However, those routes seem to be less important, and that importance is declining further, as in the case of the northern route. For example, in 2008, 10 per cent of global heroin and morphine interceptions were made in countries along the northern route; by 2017, this had fallen to 1 per cent.

Main heroin trafficking routes as described by reported seizures, 2013–2017



Sources: UNODC, responses to the annual report questionnaire and individual drug seizure database.

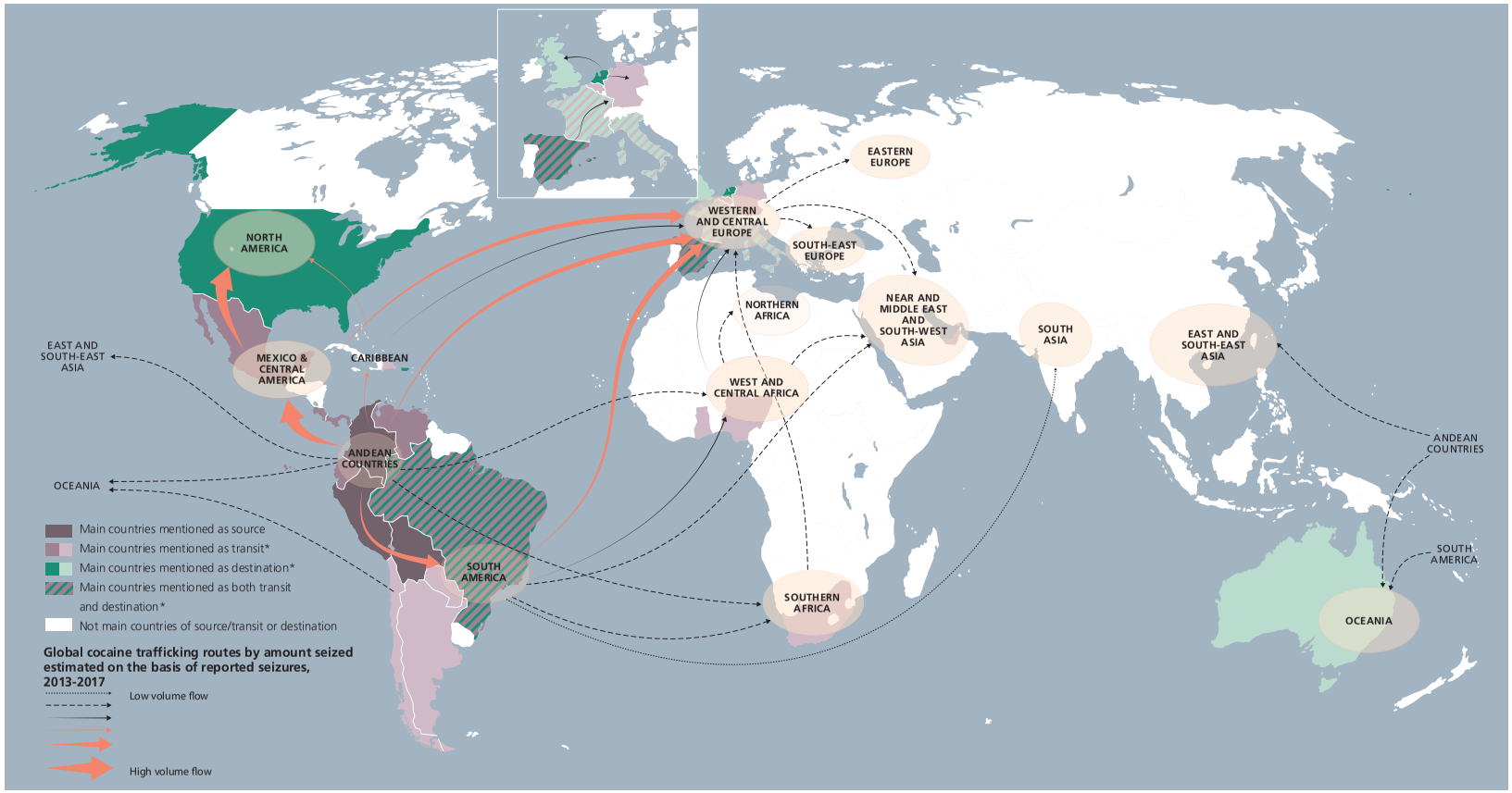
*A darker shade indicates a larger amount of heroin being seized with the country as transit/destination.

The size of the route is based on the total amount seized on that route, according to the information on trafficking routes provided by Member States in the annual report questionnaire, individual drug seizures and other official documents, over the period 2013–2017. The routes are determined on the basis of reported country of departure/transit and destination in these sources. As such, they need to be considered as broadly indicative of existing trafficking routes while several secondary routes may not be reflected. Route arrows represent the direction of trafficking: origins of the arrows indicate either the area of departure or the one of last provenance, end points of arrows indicate either the area of consumption or the one of next destination of trafficking. Therefore, the trafficking origin does not reflect the country in which the substance was produced.

The main countries mentioned as transit or destination were identified on the basis of both the number of times they were identified by other Member States as departure/transit or destination of seizures, and the annual average amount that these seizures represent during the period 2013–2017. For more details on the criteria used, please see the Methodology section of this document.

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.The dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Main cocaine trafficking routes as described by reported seizures, 2013–2017



Sources: UNODC.

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Most of the heroin trafficked in the Americas originates within the region

The amount of heroin seized in the Americas has shown a clear upward trend over the last decade. Most of this trafficking takes place within North America, usually from Mexico to the United States, although the heroin found in Canada originates in Afghanistan.

Analysis of wholesale seizures of heroin in the United States has shown the increasing predominance of heroin originating in Mexico. Some 80 per cent of the heroin samples analysed in 2016 came from Mexico.

Cocaine trafficking has expanded into a global phenomenon since the 1980s

Some 143 countries across all regions reported cocaine seizures over the period 2013–2017, up from 99 countries over the period 1983–1987.

Most of the cocaine trafficked from the Andean countries of South America is destined for the main consumer markets in North America and Western and Central Europe. Seizures in North America have more than doubled in recent years, from 94 tons in 2013 to 238 tons in 2017.

The second most important cocaine trafficking flow worldwide is from the Andean countries to Western Europe. The quantity of cocaine seized in Western and Central Europe has also more than doubled in the past five years, from 65 tons in 2013 to 141 tons in 2017.

Relationship between licit production and illicit markets remains sometimes unclear

Fentanyl and tramadol markets are likely underpinned by illicit supply

Data that can help explain whether pharmaceutical opioids are diverted from the licit to the illicit market or are illicitly produced at source are limited, although the situation varies depending on the substance and region.

In the case of fentanyl, for example, the bulk of the substance found on the illicit market comes from illicit manufacture, although some small diversions of fentanyl have been reported in the United States.

The large market for tramadol for non-medical use in North Africa and the Near and Middle East also seems to be supplied by tramadol specifically manufactured and trafficked for the illegal market, but information remains limited.

The illicit market for other pharmaceutical opioids is likely sourced from licit channels, although illicit manufacture also occurs

Outside North America, where the diversion of pharmaceutical opioids such as codeine and oxycodone from the licit to the illicit market is evident, such diversions are not reported in large quantities. This could be the result of underreporting or the limited capacity of law enforcement authorities to detect diversions.

There is a gap in knowledge about the supply chain of codeine, a substance used non-medically in many subregions. The fact that most seized codeine is licitly manufactured and the lack of evidence of illicit laboratories manufacturing codeine suggest that non-medical use of codeine is largely fuelled by the legal supply chain.

However, it is unclear how and at what stage the supply of codeine for medical use is diverted for non-medical use. There may be a combination of scenarios: some codeine preparations may be easy to access through pharmacies or other types of outlets, and some diversion may take place before the drug reaches the retail market, resulting in the licit supply being diverted to the illicit market.

HEALTH CONSEQUENCES

The adverse health consequences associated with the use of drugs remain considerable

More than 11 million people worldwide inject drugs

People who inject drugs (PWID) experience multiple negative health consequences. They are at an increased risk of fatal overdose and are disproportionately affected by blood-borne infectious diseases such as HIV and hepatitis C. The number of people who inject drugs worldwide stood at 11.3 million in 2017.

A small number of countries account for a considerable proportion of the global number of PWID. Some 43 per cent of all PWID reside in just three countries: China, the Russian Federation and the United States.

Patterns of HIV infection among people who inject drugs have wide regional variations

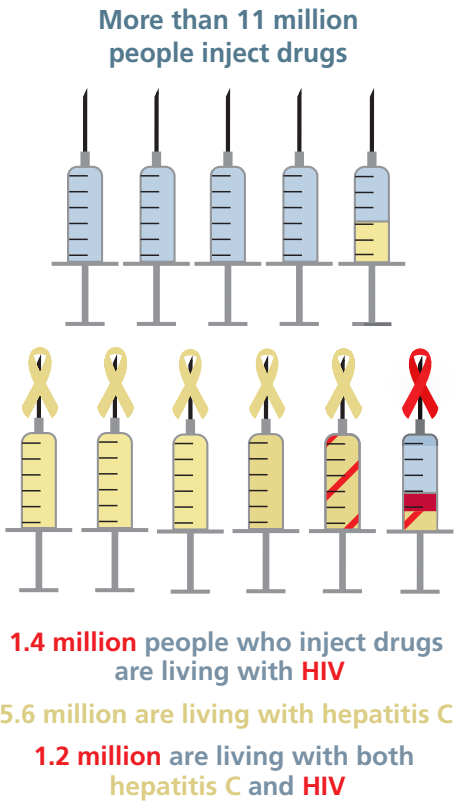
Roughly one in eight people who inject drugs lives with HIV, amounting to 1.4 million people. UNAIDS estimates that injecting drug users are 22 times more likely than the general population to be infected with HIV.

The prevalence of HIV among PWID is the highest by far in South-West Asia and in Eastern and South-Eastern Europe, with rates that are 2.3 and 1.8 times the global average, respectively. Those two subregions also have higher than average proportions of injecting drug users.

Action to tackle hepatitis C epidemic among people who inject drugs has been slow

Hepatitis C is highly prevalent among PWID, with almost one half of PWID, or some 5.6 million people, living with hepatitis C.

Highly effective treatment for hepatitis C has recently become available in the form of direct-acting antivirals, potentially transforming the management and outlook for PWID living with hepatitis C. However, despite the opportunity afforded by these new medications in addressing the high burden of hepatitis C among PWID, progress in scaling-up prevention and treatment services among PWID has been slow.



Deaths and years of "healthy" life lost attributed to the use of drugs remain unacceptably high

Some 585,000 people are estimated to have died as a result of drug use in 2017. More than half of those deaths were the result of untreated hepatitis C leading to liver cancer and cirrhosis; almost one third were attributed to drug use disorders. Most (two thirds) of the deaths attributed to drug use disorders were related to opioid use.

Some 42 million years of "healthy" life were lost (premature deaths and years lived with disability) as a result of drug use. They were also mostly attributed to drug use disorders, especially from the use of opioids.

The greatest burden of disease is seen in East and South-East Asia, North America and South Asia, reflecting the large numbers of opioid users and PWID in those subregions.

Treatment demand for cannabis use disorders is increasing in most regions

All regions except Africa, where the proportion is higher than in other regions, have seen an increasing proportion of people entering treatment for cannabis use disorders as the primary drug of concern. Opioids (predominantly heroin) remain the main drug type for which people receive treatment in Europe (particularly in Eastern and South-Eastern Europe) and Asia. In Europe, an ageing cohort of opioid users, many of them in contact with drug treatment services, remains a health concern.

Cocaine users increasingly seek treatment in Europe, most often for polydrug use

The number of people seeking treatment for the first time for cocaine use disorders has increased over the past two years in European Union countries. Three quarters of those who accessed specialized drug treatment services for the first time were reported in just three countries: Italy, Spain and the United Kingdom.

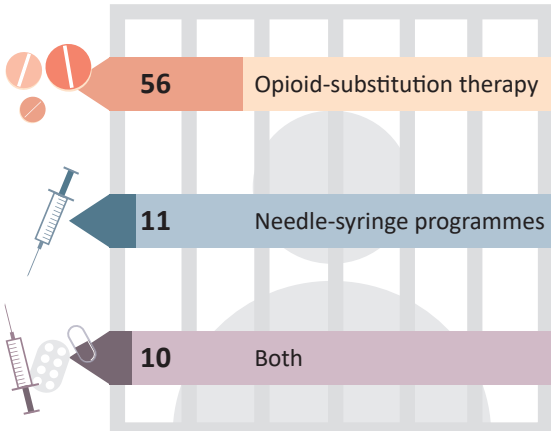
Among all cocaine users entering drug treatment in the European Union, one third were seeking treatment only for cocaine use disorders. The rest also reported the use of secondary substances, especially alcohol and cannabis. Many of the "crack" cocaine users entering treatment reported using heroin as a secondary drug.

Patterns of drug use and treatment needs vary according to gender

Women disproportionately affected by the non-medical use of tranquillizers and sedatives

The non-medical use of sedatives and tranquillizers was reported in all regions in 2017. Women are particularly affected by this kind of substance use.

Numbers of countries implementing interventions in at least one prison



In countries in South and Central America, the non-medical use of tranquillizers in the past year concerns more than 2 per cent of the general population, and such use is higher among women than among men.

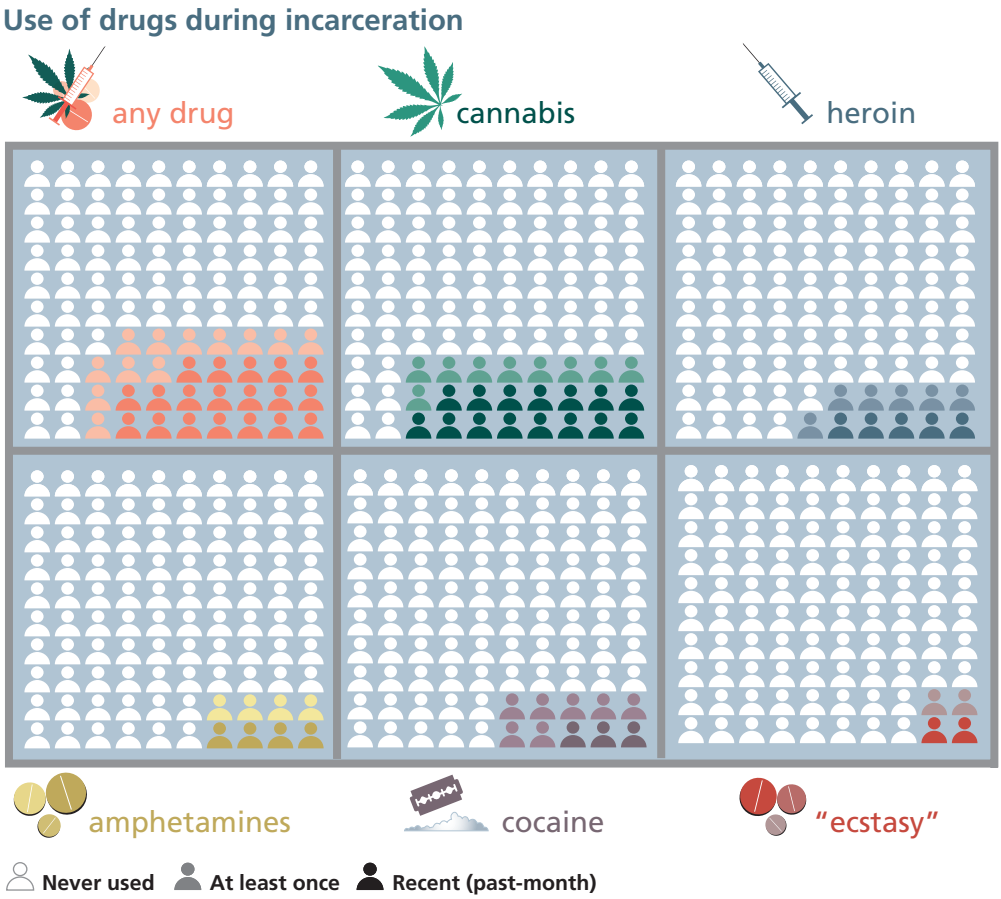
Similarly, 14 countries in Western and Central Europe reported on the non-medical use of tranquillizers in 2017, and in all countries the rate was higher among women than among men. Also, in 8 of the 14 countries, the non-medical use of tranquillizers was more prevalent than the use of cannabis.

Substance use by women tends to progress to drug use disorders in a shorter time period than substance use by men. However, women may be afraid to seek treatment, in particular if they are pregnant and fear legal issues and social stigma. If they are mothers or caregivers, childcare arrangements can become an issue, for example.

Prisoners are vulnerable to drug use but underserved by treatment programmes

People with a history of drug use or drug use disorders form a substantial part of the prison population in some countries

Drug use and drug use disorders are highly prevalent among people who are incarcerated. Based on studies from high-income countries, drug use disorders are more prevalent in female prisoners than in male



prisoners; 51 per cent of women, compared with 30 per cent of men, are estimated to have suffered from drug use disorders during the year before their incarceration – a far higher rate than among the general population.

Information from low- and middle-income countries is sparse, but studies suggest that almost half of prisoners in those countries had a history of drug use prior to incarceration. While cannabis was the most common drug used, roughly 1 in 10 had ever used opiates and another 1 in 10 had a history of injecting drug use.

Drug use, including drug injecting, is documented in many prisons

About one in three people held in prisons worldwide is estimated to have used drugs at least once while incarcerated. One in five report current (past-month) drug use. Cannabis is the most popular drug, but the current (past-month) use of heroin is more prevalent than the use of amphetamines, cocaine or "ecstasy".

People who inject drugs in prisons face an especially high risk of transmission of HIV and hepatitis C as the result of the high prevalence of HIV and hepatitis C in prison populations in general, and because of a lack of availability of sterile needles and syringes in many prisons, which may prompt prisoners to share injecting equipment more often and among more people. The highest prevalence of injecting drug use while incarcerated is found in Asia and the Pacific, Eastern Europe and Central Asia, where approximately one in five people held in prisons had injected drugs at least once while incarcerated.

High levels of HIV and hepatitis C among people who inject drugs in prisons in some countries

While the prevalence of HIV and hepatitis C among the general prison population is much higher than

among the general population in the community, the limited data available point to rates that are substantially higher among PWID in prisons (injected any drug before or during incarceration) than among non-injecting prisoners.

A review of available studies found that PWID in prison had six times the prevalence of HIV and more than eight times the prevalence of hepatitis C compared with the non-injecting prison population.

Major gaps in the prevention and treatment services for infectious diseases in prison

Fifty-six countries reported that they provided opioid substitution therapy in at least one prison in 2017, while 46 countries reported not having such a treatment option in prison settings. Needle-syringe programmes are far less available in prison: 11 countries reported their availability in at least one prison, but such programmes were confirmed as absent in 83 countries. While the provision of both interventions in combination can be particularly effective in preventing the spread of HIV and hepatitis C, there were only 10 countries that provided such interventions in at least one prison, although both were not necessarily available in the same prisons.

The high prevalence of hepatitis C and HIV in prison populations, especially among PWID, and the considerable adverse health consequences associated with these infectious diseases underscore the need for testing and access to treatment in prison settings. Fewer countries report the availability of testing and treatment, in at least one prison, for hepatitis C (42 countries had testing and 39 countries had treatment) than for HIV (78 countries had testing and 87 countries had treatment).

CONCLUSIONS AND POLICY IMPLICATIONS

Strengthened international cooperation and concerted support are needed to stop global drug challenges from endangering efforts to achieve Sustainable Development Goal targets to ensure healthy lives and promote peace and justice. Changing global patterns of drug use, involving controlled drugs (heroin, cocaine, amphetamines and cannabis), NPS and non-medical use of pharmaceutical drugs, have contributed to increasingly complex challenges. Some 35 million people suffer from drug use disorders and 11 million inject drugs, of whom 1.4 million live with HIV and 5.6 million live with hepatitis C.

Evidence on the adverse health consequences of drug use suggests a higher burden of disease than what had previously been estimated, with over half a million deaths and 42 million years of "healthy" life lost due to drug use. Illicit drug crop cultivation and plant-based manufacture are at historically high levels. Despite a decline in 2017, the area under opium poppy cultivation and global opium production remain at high levels, and coca bush cultivation and the global manufacture of cocaine have also reached record levels.

An area where the international community has had a degree of success is in addressing NPS, evidenced by a decline in the number of NPS identified and reported for the first time to UNODC. NPS have not been taken up in the market to the extent feared a few years ago, and the international community has reacted in a timely manner to assess the harms caused by NPS and to schedule those that warranted international control.

Help for those who need it

Public health responses continue to fall short. Effective treatment interventions based on scientific evidence and in line with international human rights obligations are not as available or accessible as they need to be, and national governments and the international community need to step up interventions to address this gap.

Greater commitments and resources are needed, first and foremost to scale up the prevention of substance use through interventions proven to be effective and supported by international standards. Vulnerability to initiating and developing substance use disorders is contingent on a number of protective and risk factors related to an individual and aspects of their environment – parents, family, school and peers – as well as the influence of the physical and socioeconomic environment. Interventions can be successful only if they strengthen protective conditions while attenuating or preventing factors that increase vulnerability, including by contributing to the overall positive engagement of young people and their families, schools and communities.

Understanding drug use as a complex, multifaceted and relapsing chronic condition that requires continuing care and interventions, drawing on many disciplines, can help to dispel the stigma associated with drug use. This can also support increased efforts to:

- Scale up scientific evidence-based interventions for the treatment of drug use disorders that are integrated within the health-care delivery system of each country, encompass universal access to services, are available and accessible in different settings to people in need, are based on principles of human rights and ethics, and address the varied needs of people with drug use disorders.
- Scale up the provision of the comprehensive package of nine interventions for the prevention and treatment of hepatitis C, HIV and other infections among people who use or inject drugs, which is a package based on the principles of equality, comprehensiveness, accessibility and sustainability and which encompasses universal access to services.
- Ensure that emergency room interventions for acute drug intoxication and overdose cases in hospitals and in community settings are available and accessible to people who use drugs; for each fatal overdose there are at least 20 cases of non-fatal overdose.
- Scale up overdose prevention interventions, especially in the case of opioids, by promoting access to naloxone and the training of potential first responders in overdose management, and

set up such overdose prevention programmes in the many subregions where they do not yet exist. Opioids contribute to a major proportion of disability-adjusted life years (DALYs) attributed to drug use disorders.

Mitigate concentrations of high risk

A central principle of the 2030 Agenda for Sustainable Development is to "ensure that no one is left behind" and to "reach the furthest behind first". Among the population groups most affected by the drug problem are people held in prisons. This year, the *World Drug Report* provides in-depth analysis of drug use and its adverse health consequences in prison settings, which suggests that the risks associated with drug use disorders and mental health disorders, HIV, hepatitis C and tuberculosis are higher than among the general population. The prevalence of infectious diseases such as HIV, hepatitis C and active tuberculosis are also disproportionally higher among prison populations, in particular among those who inject drugs in prison.

One strategy to mitigate risks associated with drug use and its adverse health consequences is to promote alternatives to incarceration, in line with the international drug control conventions, by providing people who use drugs and with drug use disorders who have come into contact with the criminal justice system with the option of entering voluntarily evidence-based drug treatment services within the community.

People held in prisons have the same right to health and well-being as any other person. The Nelson Mandela Rules emphasize that health care for people in prison should be of the same standard as that available in the community, and that continuity of treatment and care should be ensured on admission, transfer and release from prison. The provision of the comprehensive package of 15 evidence-based key interventions that are essential for effective prevention and treatment of HIV, hepatitis C and tuberculosis in prison settings must be a key component of health-care services for people who use drugs in such closed settings. It is also important to consider that the health of people in prison impacts upon the wider society, especially in relation to infectious diseases and mental health conditions, as almost all people in prison eventually return to their communities. Improving the health outcomes of people in prisons, in turn, improves public health and reduces health inequalities among the general population.

The global paradox of too much and not enough

Pharmaceutical opioids are essential medicines for the management of pain and other conditions. Yet a large proportion of the global population continues to have minimal access to such medicines because of legislative, regulatory, administrative and human resource impediments. The aim of the international drug control conventions has always been to ensure the availability of controlled substances for medical and scientific purposes while preventing their diversion and misuse. Applying the spirit of the international drug conventions calls for the removal of barriers that can limit the availability and accessibility of controlled drugs for their medical use. Legal and regulatory frameworks and clinical guidelines based on rational prescription practices can help increase accessibility to prescription drugs, including pharmaceutical opioids, while reducing the risk of their diversion.

However, irrational prescription practices, unjustified promotion and uncontrolled availability of prescription drugs result in negative consequences and their non-medical use has become detrimental to public and individual health in many subregions worldwide. The non-medical use of prescription drugs, in particular of pharmaceutical opioids, poses a dilemma for both national and international control mechanisms.

As the analysis in the present report shows, non-medical use of prescription drugs is a major component of overall polydrug use patterns and of the adverse health consequences of drug use. People misuse prescription drugs to self-medicate, especially in the context of a weak health system; to intensify the effects of the main substance used; to overcome the side effects of the main drug, or to alleviate the adverse effects and severity of withdrawal symptoms.

More research is needed to improve understanding of the dynamics of non-medical use of prescription drugs to address their misuse effectively while guaranteeing the availability and accessibility of essential medicines. The challenge is to strike the correct balance between legitimate medical accessibility and the risk of diversion of prescription drugs. A case in point is tramadol, which is medically in high demand yet, due to its limited regulation, a source of profit for criminal groups operating in Central, West and North Africa, the Near and Middle East and subregions in Asia. Tightening control of tramadol in countries where its supply originates and in destination countries helps to counter the trafficking of such falsified medicines. This was the basis of the recent measures introduced in India to control tramadol under the narcotics law and thus give law enforcement authorities official powers to deal with the illicit manufacturing and smuggling of the substance. However, such national efforts rely on international cooperation, based on the principle of the shared and common responsibility.

Law enforcement is an integral part of the solution

Where vulnerability exists, criminal opportunity exploits. Addressing both in a balanced and comprehensive manner through health-centred, rights-based criminal justice responses is essential. The record levels of cocaine and opiate production in the last couple of years, together with a still expanding market for synthetic drugs such as illicitly manufactured fentanyl and its analogues, require intensified efforts by law enforcement authorities. International cooperation remains a tool crucial to successfully countering drug trafficking. For example, China introduced national legislation in May 2019 that scheduled most of the fentanyl analogues currently known worldwide.

Nevertheless, since drug traffickers can replace drugs lost at wholesale cost, drug seizures per se cannot be expected to disrupt drug markets unless they are exceedingly large. If a seizure is associated with the dismantling of an organization that had a substantial share of market throughput capacity, a correlation between seizures and price changes, as well as an impact on the drug market, may be observed. Effectively addressing the supply of drugs requires shifting the focus of law enforcement agencies from measuring success by quantities of drugs seized to dismantling drug trafficking organizations and transnational organized criminal groups. This in turn requires increased sophistication, the development of a critical mass of basic knowledge and the sharing of operational information among law enforcement authorities and specialized units in different jurisdictions. In addition, the business structure of organized crime groups is changing, at times moving towards more loosely associated networks that are difficult to interdict, and thus there is a need to enhance training for law enforcement officials and investment in analysis to understand these new dynamics and design effective counter-narcotic interventions. Such actions would benefit from effective coordination among national, regional and international institutions.

Cannabis markets need to be closely monitored

While it is too early to assess the ultimate impact of the legislation allowing the non-medical use of cannabis in Canada, Uruguay and jurisdictions in the United States of America, some early trends are worthy of close monitoring. One stated aim of legalization was to prevent organized crime groups from generating profits from cannabis; however, thriving illicit cannabis markets still exist in many of the states in the United States that allow the non-medical use of cannabis. This is particularly evident in the states of Colorado and Washington, which, in 2012, were among the first jurisdictions in the country to adopt measures allowing the non-medical use of cannabis.

Another outcome of such legislation is that commercial companies are rapidly replacing artisanal producers of cannabis. With the market for non-medical use of cannabis expanding rapidly, profits are more likely to dictate and control the course of the cannabis industry than are public health considerations. The marketing and availability of a wide range of cannabis products with a THC content far higher than that seen a couple of decades ago in states allowing non-medical use is a case in point.

It is also noteworthy that in the United States, every single state that has legalized non-medical use of cannabis first legalized it in a medical capacity; with the exception of one state, ballots have been the main route to the acceptance, first of medical and then of non-medical use. The ongoing policy debate and its coverage in the media appear to have impacted the risk perceptions of harm caused by cannabis use, especially among young people. This is illustrated by the marked increase in more frequent and heavy use of cannabis and, while frequent and heavy users constitute only a small share of all annual cannabis users, they account for the vast majority of the consumption of cannabis products in the market. The scientific literature suggests that people using cannabis who progress to daily use have a higher probability of developing cannabis use disorders, while regular and heavy use of cannabis with a high THC content has been identified as a risk factor for acute and chronic adverse health outcomes, including mental health problems and cannabis use disorders.

The availability of cannabis with a comparatively higher THC content has resulted in an increasing number of people seeking treatment for cannabis use disorders in many subregions. In addition to evidence-based prevention strategies that start at an early age, there is a need to improve understanding, especially among young people, of the negative health consequences, both of early initiation and the long-term heavy and frequent non-medical use of cannabis.

Moreover, public debate tends to confuse or conflate non-medical use of cannabis, including use of cannabis flower and other concentrates with high levels of THC, with medical use of cannabis products such as THC and CBD, often in the form of pharmaceutical preparations for treating and managing health conditions including chronic pain, multiple sclerosis and spasticity symptoms, and sleep disturbances associated with fibromyalgia and chronic pain. CBD, a cannabinoid that is not a psychoactive agent and is often promoted as a health and wellness product, should not be confused with THC, a very different and psychoactive cannabinoid. Policy, legislation and public debate would do well to address these very different issues with greater clarity.

Evolving complexity highlights need for further research

The availability of new and reliable data in 2019 on the extent of drug use from two countries with large populations, Nigeria and India, has improved regional and global estimates of drug use enormously. This new empirical evidence has led to an increase in the estimated global number of opioid users: there are 50 per cent more than previously thought. This has implications for global measures to address adverse health consequences attributed to the use of opioids and scale up services to address the global opioid crisis. It is also a reminder of the continuing need to improve data and analysis in a context where perceptions often dominate public debate. Global drug challenges are evolving and complex, requiring an evolving and refined understanding to inform responses. This requires the scaling-up of data collection, dissemination, analysis and research. This will enable national and international stakeholders to assess the drug problem with precision, guide global policy discussions and drive the international cooperation agenda and direct support where it is needed.

The international data collection system needs to be brought up to date in order to reflect the dynamics of both drug use and the supply of controlled substances. The monitoring of the modi operandi of drug traffickers and their trafficking routes needs to capture the dynamics and incentive systems inherent to drug trafficking. There is a need to understand, in particular, the complexity and variability of the spectrum of drug trafficking modalities. The dynamics of the recent opioid crisis in North America, which are now coming to light, highlight the need to address both sophisticated trafficking of large shipments in containers and the smuggling of small packages containing NPS and synthetic opioids (fentanyl analogues) via the postal system. Some end users buy their products directly online or via the darknet, posing additional challenges. This changing landscape is a far cry from the situation of just two decades ago, with mostly organic psychoactive substances being trafficked across borders.

Another illustration of how today's dynamics demand new insight is the decline in the trafficking of opiates along the northern route at a time when

Afghan opiate production is at its peak. The decline in the quantities of opiates seized along the northern route can be attributed to altering trade incentives and risks, resulting in a possible displacement to other routes. Among the potential reasons to be studied are the decline in demand for opiates along the northern route and the shift from the use of opiates to the use of other drugs, including synthetic opioids, regional cooperation and the increasing ability of national authorities to prevent opiate trafficking.

To ensure better control of the illicit manufacture and trafficking of synthetic opioids (fentanyl and analogues) and other NPS, there is also a need to further develop national monitoring and research capacity not only to enhance forensic capacity but also to identify and report on the emergence of psychoactive substances.

The evolving situation related to the non-medical use of cannabis and the expanding cannabis market has spurred understanding of the need for more research and consistent data. In the jurisdictions with legislation allowing the non-medical use of cannabis, the different cannabis products, their potency, health effects and use, including for medical purposes, are not yet fully documented, making it difficult for policymakers, pharmaceutical companies and potential users to assess the public health impact.

Improving the quality and coverage of data on indicators of drug use and its health consequences (especially estimates from highly populated countries) as well as supply indicators will strengthen the analysis and evidence presented in the *World Drug Report* and better inform the global policy debate. This requires promoting cooperation among different international and regional stakeholders on data collection, reporting and research. It also requires promoting initiatives for building capacities in Member States to improve the quality and coverage of national data and conduct operational research on drug markets.

Annual prevalence of the use of cannabis, opioids and opiates, by region and globally, 2017

Region or subregion	Cannabis						Opioids (opiates and pharmaceutical opioids)						Opiates					
	Number (thousands)			Prevalence (percentage)			Number (thousands)			Prevalence (percentage)			Number (thousands)			Prevalence (percentage)		
	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper
Africa	**44,900**	**35,350**	**62,690**	**6.4**	**5.1**	**9.0**	**6,080**	**5,000**	**7,390**	**0.87**	**0.71**	**1.06**	**1,470**	**530**	**2,800**	**0.21**	**0.08**	**0.40**
East Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Africa	-	-	-	-	-	-	360	120	660	0.25	0.08	0.46	360	120	660	0.25	0.08	0.46
Southern Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West and Central Africa	26,760	25,700	29,420	10.0	9.6	11.0	-	-	-	-	-	-	-	-	-	-	-	-
Americas	**56,590**	**55,600**	**58,330**	**8.4**	**8.3**	**8.7**	**13,600**	**11,980**	**16,320**	**2.03**	**1.79**	**2.43**	**2,690**	**1,970**	**3,480**	**0.40**	**0.29**	**0.52**
Caribbean	1,040	580	2,090	3.6	2.0	7.2	-	-	-	-	-	-	-	-	-	-	-	-
Central America	880	820	990	2.9	2.7	3.3	-	-	-	-	-	-	-	-	-	-	-	-
North America	44,630	44,460	44,810	13.8	13.7	13.8	12,830	11,640	13,720	3.96	3.60	4.24	2,400	1,790	2,970	0.74	0.55	0.92
South America	10,040	9,740	10,440	3.5	3.4	3.6	580	250	2,180	0.20	0.09	0.76	240	150	330	0.08	0.05	0.12
Asia	**54,210**	**41,140**	**64,840**	**1.8**	**1.4**	**2.2**	**29,460**	**26,280**	**31,910**	**0.98**	**0.88**	**1.06**	**21,730**	**18,970**	**24,570**	**0.72**	**0.63**	**0.82**
Central Asia and Transcaucasia	1,670	640	2,410	2.9	1.1	4.2	540	480	600	0.93	0.83	1.03	520	470	580	0.90	0.80	1.00
East and South-East Asia	13,570	4,160	21,740	0.8	0.3	1.4	3,280	2,330	4,010	0.20	0.15	0.25	3,280	2,330	4,010	0.20	0.14	0.25
South-West Asia/ Near and Middle East	9,500	6,890	11,180	3.1	2.3	3.7	6,950	4,910	8,550	2.28	1.61	2.81	4,930	3,300	6,910	1.62	1.08	2.27
South Asia	29,470	29,430	29,520	2.9	2.9	2.9	18,680	-	-	1.81	-	-	12,990	-	-	1.26	-	-
Europe	**29,490**	**28,810**	**30,210**	**5.4**	**5.3**	**5.6**	**3,570**	**3,330**	**3,830**	**0.66**	**0.61**	**0.70**	**3,220**	**3,010**	**3,600**	**0.59**	**0.55**	**0.66**
Eastern and South-Eastern Europe	5,880	5,530	6,220	2.6	2.5	2.8	1,730	1,660	1,810	0.77	0.74	0.80	1,490	1,410	1,570	0.66	0.63	0.70
Western and Central Europe	23,610	23,270	23,990	7.4	7.3	7.5	1,840	1,670	2,020	0.58	0.52	0.63	1,740	1,590	2,030	0.54	0.50	0.64
Oceania	**2,840**	**2,790**	**2,950**	**10.9**	**10.7**	**11.3**	**650**	**570**	**730**	**2.48**	**2.18**	**2.79**	**40**	**40**	**70**	**0.16**	**0.14**	**0.28**
Australia and New Zealand	2,090	2,090	2,090	11.0	11.0	11.0	630	570	680	3.28	2.98	3.58	35	35	41	0.18	0.18	0.22
Melanesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Micronesia	60	40	80	17.2	11.3	23.1	-	-	-	-	-	-	-	-	-	-	-	-
Polynesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GLOBAL ESTIMATE	**188,040**	**163,680**	**219,020**	**3.8**	**3.3**	**4.4**	**53,350**	**47,160**	**60,180**	**1.08**	**0.96**	**1.22**	**29,160**	**24,510**	**34,520**	**0.59**	**0.50**	**0.70**

Source: UNODC estimates based on annual report questionnaire data and other official sources.

Annual prevalence of the use of cocaine,[a] amphetamines[b] and "ecstasy", by region and globally, 2017

Region or subregion	Cocaine[a]						Amphetamines[b] and pharmaceutical stimulants						"Ecstasy"					
	Number (thousands)			Prevalence (percentage)			Number (thousands)			Prevalence (percentage)			Number (thousands)			Prevalence (percentage)		
	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper
Africa	**1,300**	**160**	**2,570**	**0.19**	**0.02**	**0.37**	**3,680**	**900**	**6,600**	**0.53**	**0.13**	**0.94**	**1,800**	**100**	**7,880**	**0.26**	**0.01**	**1.13**
East Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Africa	-	-	-	-	-	-	500	340	610	0.34	0.23	0.42	-	-	-	-	-	-
Southern Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West and Central Africa	250	1	633	0.09	0.00	0.24	-	-	-	-	-	-	-	-	-	-	-	-
Americas	**9,930**	**9,200**	**10,590**	**1.48**	**1.37**	**1.58**	**7,860**	**6,660**	**9,230**	**1.17**	**0.99**	**1.38**	**3,500**	**3,390**	**3,630**	**0.52**	**0.51**	**0.54**
Caribbean	180	80	330	0.62	0.29	1.15	250	20	700	0.87	0.05	2.42	60	30	100	0.23	0.10	0.36
Central America	200	100	310	0.66	0.34	1.02	60	30	100	0.21	0.09	0.31	50	20	100	0.17	0.07	0.33
North America	6,800	6,660	6,950	2.10	2.06	2.15	6,840	5,990	7,690	2.11	1.85	2.38	2,870	2,870	2,870	0.89	0.89	0.89
South America	2,740	2,360	3,000	0.95	0.82	1.04	710	630	740	0.25	0.22	0.26	510	470	550	0.18	0.16	0.19
Asia	**1,670**	**1,140**	**2,220**	**0.06**	**0.04**	**0.07**	**14,140**	**4,980**	**23,290**	**0.47**	**0.17**	**0.78**	**11,490**	**1,600**	**21,380**	**0.38**	**0.05**	**0.71**
Central Asia and Transcaucasia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East and South-East Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South-West Asia/Near and Middle East	70	30	130	0.02	0.01	0.04	-	-	-	-	-	-	-	-	-	-	-	-
South Asia	1,030	1,030	1,030	0.10	0.10	0.10	1,850	1,850	1,850	0.18	0.18	0.18	-	-	-	-	-	-
Europe	**4,740**	**4,460**	**5,140**	**0.87**	**0.82**	**0.95**	**2,900**	**2,350**	**3,480**	**0.53**	**0.43**	**0.64**	**4,060**	**2,930**	**6,970**	**0.54**	**0.39**	**0.93**
Eastern and South-Eastern Europe	500	340	720	0.22	0.15	0.32	710	410	1,040	0.32	0.18	0.46	1,310	250	4,040	0.31	0.06	0.95
Western and Central Europe	4,240	4,120	4,420	1.33	1.29	1.39	2,180	1,940	2,440	0.68	0.61	0.76	2,750	2,680	2,930	0.86	0.84	0.92
Oceania	**430**	**410**	**440**	**1.65**	**1.57**	**1.67**	**350**	**320**	**360**	**1.34**	**1.24**	**1.38**	**440**	**410**	**450**	**1.68**	**1.56**	**1.72**
Australia and New Zealand	420	410	420	2.20	2.15	2.23	250	250	250	1.34	1.34	1.34	410	400	430	2.17	2.12	2.23
Melanesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Micronesia	-	-	-	-	-	-	5	2	11	1.58	0.56	3.10	-	-	-	-	-	-
Polynesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GLOBAL ESTIMATE	**18,070**	**15,380**	**20,960**	**0.37**	**0.31**	**0.42**	**28,920**	**15,210**	**42,960**	**0.59**	**0.31**	**0.87**	**21,290**	**8,420**	**40,310**	**0.41**	**0.16**	**0.78**

Source: UNODC estimates based on annual report questionnaire data and other official sources.

[a] *Cocaine includes cocaine salt, "crack" cocaine and other types such as coca paste, cocaine base, "basuco", "paco" and "merla".*
[b] *Amphetamines include both amphetamine and methamphetamine.*

Estimated number and prevalence (percentage) of people who inject drugs and those living with HIV among this group, by region, 2017

Region or subregion	People who inject drugs							HIV among people who inject drugs				
	Estimated number			Prevalence (%)			Data coverage of population aged 15-64 years	Estimated number			Prevalence (%) Best estimate	Data coverage of estimated number of people who inject drugs
	Low	Best	High	Low	Best	High		Low	Best	High		
Africa	**450,000**	**810,000**	**2,140,000**	**0.06**	**0.12**	**0.31**	**57.8%**	**42,000**	**93,000**	**515,000**	**11.4**	**75.4%**
America	**1,860,000**	**2,370,000**	**2,870,000**	**0.28**	**0.35**	**0.43**	**86.1%**	**109,000**	**174,000**	**259,000**	**7.3**	**93.9%**
North America	1,560,000	1,790,000	2,020,000	0.48	0.55	0.62	100%	94,000	124,000	159,000	6.9	100%
Latin America and the Caribbean	300,000	580,000	850,000	0.09	0.17	0.25	73.2%	16,000	50,000	100,000	8.5	75.2%
Asia	**4,130,000**	**5,430,000**	**6,900,000**	**0.14**	**0.18**	**0.23**	**95.0%**	**449,000**	**667,000**	**925,000**	**12.3**	**98.0%**
Central Asia and Transcaucasia	400,000	450,000	530,000	0.69	0.78	0.91	93.6%	28,000	34,000	44,000	7.5	93.6%
East and South-East Asia	2,210,000	3,210,000	4,200,000	0.14	0.20	0.26	95.1%	181,000	320,000	482,000	10.0	98.7%
South-West Asia	570,000	750,000	950,000	0.29	0.38	0.48	100%	154,000	216,000	284,000	28.9	100%
Near and Middle East	40,000	90,000	270,000	0.03	0.08	0.25	39.0%	1,800	3,200	10,400	3.8	55.6%
South Asia	910,000	930,000	950,000	0.09	0.09	0.09	99.9%	84,000	93,000	105,000	10.0	99.9%
Europe	**2,350,000**	**2,570,000**	**2,990,000**	**0.44**	**0.48**	**0.55**	**90.0%**	**483,000**	**505,000**	**556,000**	**19.6**	**99.9%**
Eastern and South-Eastern Europe	1,760,000	1,800,000	1,860,000	0.80	0.82	0.84	100%	416,000	423,000	431,000	23.5	100%
Western and Central Europe	590,000	770,000	1,130,000	0.19	0.24	0.35	83.0%	67,000	82,000	126,000	10.6	99.9%
Oceania	**130,000**	**130,000**	**140,000**	**0.51**	**0.52**	**0.54**	**73.0%**	**1,300**	**1,600**	**1,700**	**1.2**	**73.0%**
Global	**8,930,000**	**11,320,000**	**15,030,000**	**0.18**	**0.23**	**0.30**	**87.9%**	**1,090,000**	**1,440,000**	**2,260,000**	**12.7**	**95.7%**

Source: Responses to the annual report questionnaire; progress reports of the Joint United Nations Programme on HIV/AIDS (UNAIDS) on the global AIDS response (various years); the former Reference Group to the United Nations on HIV and Injecting Drug Use; published peer-reviewed articles; and government reports.

Note: Prevalence of people who inject drugs is the percentage of the population aged 15–64 years.

Opium/heroin

Illicit cultivation of opium poppy, 2007–2018 (hectares)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
SOUTH-WEST ASIA												
Afghanistan (best estimate)	193,000	157,000	123,000	123,000	131,000	154,000	209,000	224,000	183,000	201,000	328,000	263,000
lower bound [a]			102,000	104,000	109,000	125,000	173,000	196,000	163,000	182,000	301,000	242,000
upper bound [a]			137,000	145,000	155,000	189,000	238,000	247,000	202,000	221,000	355,000	283,000
SOUTH-EAST ASIA												
Lao People's Democratic Republic (best estimate) [b]	1,500	1,600	1,900	3,000	4,100	6,800	3,900	6,200	5,700	..	..	..
lower bound [a]	1,230	710	1,100	1,900	2,500	3,100	1,900	3,500	3,900			
upper bound [a]	1,860	2,700	2,700	4,000	6,000	11,500	5,800	9,000	7,600			
Myanmar (best estimate) [b]	27,700	28,500	31,700	38,100	43,600	51,000	57,800	57,600[c]	55,500[c]	..	41,000	37,300[c]
lower bound [a]	22,500	17,900	20,500	17,300	29,700	38,249	45,710	41,400	42,800		30,200	29,700
upper bound [a]	32,600	37,000	42,800	58,100	59,600	64,357	69,918	87,300	69,600		51,900	47,200
SOUTH AND CENTRAL AMERICA												
Colombia (best estimate)	715	394	356	341	338	313	298	387	595	462	282	..
Mexico (best estimate) [b, d, f, h]	6,900	15,000	19,500	14,000	12,000	10,500	11,000	17,000	26,100	25,200	30,600	..
lower bound [a]									21,800	20,400	22,800	
upper bound [a]									30,400	30,000	38,400	

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
OTHER												
Other countries [e]	**5,885**	**10,509**	**9,479**	**12,221**	**16,462**	**12,282**	**13,293**	**11,522**	**10,597**	**68,139**	**14,589**	***45,471***
TOTAL (best estimate)	235,700	213,003	185,935	190,662	207,500	234,895	295,291	316,709	281,492	294,801	414,471	*345,771*
lower bound			**152,935**	**149,762**	**170,000**	**189,444**	**245,201**	**269,809**	**242,692**	**256,501**	**367,251**	***307,751[g]***
upper bound			**211,835**	**233,662**	**249,400**	**287,952**	**338,309**	**372,209**	**320,792**	**335,601**	**462,251**	***385,551[g]***
TOTAL (best estimate, rounded)	**235,700**	**213,000**	**185,900**	**190,700**	**207,500**	**234,900**	**295,300**	**316,700**	**281,500**	**294,800**	**414,500**	***345,800[g]***

Sources: Afghanistan, Lao People's Democratic Republic and Myanmar: national illicit crop monitoring system supported by the United Nations Office on Drugs and Crime (UNODC). Colombia: Government of Colombia. Mexico: up to 2014, estimates derived from surveys by the Government of the United States of America (international narcotics control strategy reports); for 2015 and onwards, joint Mexico/UNODC project entitled "Monitoring of the illicit cultivation on Mexican territory".

Note: Figures in italics are preliminary and may be revised when updated information becomes available. Two dots indicate that data were unavailable. Information on estimation methodologies and definitions can be found in the online methodology section of the World Drug Report 2019.

[a] *Bound of the statistically derived confidence interval.*
[b] *May include areas that were eradicated after the date of the area survey.*
[c] *Estimates for 2014, 2015 and 2018 included satellite image estimates for Kayah and Chin states. National estimates for these years are therefore not directly comparable with the other years.*
[d] *Up to 2014, the estimates for Mexico are sourced from the Department of State of the United States. The Government of Mexico does not validate the estimates provided by the United States as they are not part of its official figures and it does not have information on the methodology used to calculate them.*
[e] *Includes countries with low levels of cultivation (with less than 400 hectares in at least two of the last three years) and countries with indirect evidence of illicit cultivation (eradication of opium poppy) but no direct measurement. See table "Cultivation of opium poppy and production of opium in other countries, and eradication of opium poppy, 2008–2018".*
In addition, for 2016, 2017 and 2018, best estimates for countries for which data are not available (Lao People's Democratic Republic, Myanmar for 2016 and Mexico and Colombia for 2018) are included in this category.
Starting in 2008, a new methodology was introduced to estimate opium poppy cultivation and opium/heroin production in countries with no data on illicit cultivation of opium poppy. A detailed description of the estimation methodology is available in the online methodology section of the World Drug Report 2019.
[f] *The figures for 2015, as published in the World Drug Report 2016 (United Nations publication, Sales No. E.16.XI.7), have been revised owing to a statistical adjustment processed by UNODC. These figures are based on the estimation period July 2014–June 2015.*
[g] *Preliminary estimates for 2018; they may change as more country estimates will become available.*
[h] *The figures for 2016 and 2017 are based on the estimation periods July 2015–June 2016 and June 2016–July 2017 respectively.*

Potential production of oven–dry opium, 2007–2018 (tons)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
SOUTH-WEST ASIA												
Afghanistan (best estimate)	7,400	5,900	4,000	3,600	5,800	3,700	5,500	6,400	3,300	4,800	9,000	6,400
lower bound [a]				3,000	4,800	2,800	4,500	5,100	2,700	4,000	8,000	5,600
upper bound [a]				4,200	6,800	4,200	6,500	7,800	3,900	5,600	10,000	7,200
SOUTH-EAST ASIA												
Lao People's Democratic Republic (best estimate) [b, f]	9	10	11	18	25	41	23	92	..	..	..	..
lower bound [g]	7	4	7	11	15	18	11	51	84			
upper bound [g]	11	16	16	24	36	69	35	133	176			
Myanmar (best estimate) [b]	460	410	330	580	610	690	870	670[h]	647	..	550	520
lower bound			213	350	420	520	630	481	500		395	410
upper bound			445	820	830	870	1,100	916	820		706	664
LATIN AMERICA												
Colombia (best estimate)	14	10	9	8	8	8	11	12	17	13	7	..
Mexico (best estimate) [c, e]	150	325	425	300	250	220	225	360	*499*	*482*	*586*	..
lower bound									*279*	*261*	*292*	
upper bound									*693*	*684*	*876*	
OTHER												
Other countries (best estimate) [d]	58	187	178	224	290	172	182	198	178	888	272	*870*

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TOTAL (best estimate)	8,091	6,841	4,953	4,730	6,983	4,831	6,810	7,732	4,771	6,184	10,415	*7,790*
lower bound				**3,894**	**5,783**	**3,738**	**5,558**	**6,202**	**3,758**	**4,973**	**8,920**	***6,540***
upper bound				**5,576**	**8,214**	**5,539**	**8,052**	**9,419**	**5,784**	**7,391**	**11,907**	***9,070***
TOTAL best estimate (rounded)	**8,090**	**6,840**	**4,950**	**4,730**	**6,980**	**4,830**	**6,810**	**7,730**	**4,770**	**6,180**	**10,410**	***7,790***

Sources: Afghanistan, Lao People's Democratic Republic and Myanmar: national illicit crop monitoring system supported by the United Nations Office on Drugs and Crime (UNODC). Colombia: National illicit crop monitoring system supported by UNODC. Since 2008, production was calculated based on updated regional yield figures and conversion ratios from the Department of State and the Drug Enforcement Administration of the United States of America. Mexico: up to 2014, estimates derived from surveys by the United States Government; for 2015 and onwards, UNODC estimate.

Note: Figures in italics are preliminary and may be revised when updated information becomes available. Two dots indicate that data were unavailable. Information on estimation methodologies and definitions can be found in the online methodology section of the World Drug Report 2019.

[a] *Bound of the statistically derived confidence interval.*

[b] *Based on cultivation figures which may include areas eradicated after the date of the area survey.*

[c] *Up to 2014, the estimates are sourced from the Department of State of the United States. The Government of Mexico does not validate the estimates provided by the United States as they are not part of its official figures and it does not have information on the methodology used to calculate them.*

[d] *Includes countries with low levels of cultivation and countries with indirect evidence of illicit cultivation (eradication of opium poppy) but no direct measurement.* See table "Cultivation of opium poppy and production of opium in other countries, and eradication of opium poppy, 2008–2018".

In addition, for 2016, 2017 and 2018, best estimates for countries for which data are not available (Lao People's Democratic Republic, Myanmar for 2016 and Mexico and Colombia for 2018) are included in this category.

Starting in 2008, a new methodology was introduced to estimate opium poppy cultivation and opium/heroin production in countries with no data on illicit cultivation of opium poppy. These estimates are higher than the previous figures but have a similar order of magnitude. A detailed description of the estimation methodology is available in the online methodology section of the World Drug Report 2019.

[e] *The figures for 2015, as published in the World Drug Report 2016 (United Nations publication, Sales No. E.16.XI.7), have been revised owing to a statistical adjustment processed by UNODC. The Government of Mexico does not validate any opium production estimates. The production figures will be presented once yield data from the joint Mexico/UNODC project entitled "Monitoring of the illicit cultivation on Mexican territory" become available. Opium production figures estimated by UNODC for 2015–2017 are based on: (a) the area under cultivation, established by the joint project of the Government of Mexico and UNODC; (b) yield data, based on yield studies conducted by the United States in Mexico over the period 2001–2003. The opium production figures shown for 2015-2017 are preliminary and, for methodological reasons, are not comparable with the production figures over the period 1998–2014.*

[f] *Owing to the late timing of the monitoring activities in 2013, the survey may not have captured illicit cultivation in this year in its entirety.*

[g] *Bound of the statistically derived confidence interval, with the exception of 2015. The figures for 2015 represent independently derived upper and lower estimates; the midpoint was used for the calculation of the global total.*

[h] *Estimates for 2014, 2015 and 2018 include estimates for Kayah and Chin states. National estimates for these years are therefore not directly comparable with the other years.*

Cultivation of opium poppy and production of opium in other countries, and eradication of opium poppy, 2008–2018

Country	Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Guatemala	Cultivation (hectares)					220	310	640	260	310	700	
Guatemala	Production (tons)					4	6	14	6	6	15	
Pakistan	Cultivation (hectares)	1,909	1,779	1,721	362	382	493	217	372	130	90	
Pakistan	Production (tons)	48	44	43	9	9	12	5	9	3	2	
Thailand	Cultivation (hectares)	288	211	289	289	209	265			399		
Thailand	Production (tons)	5	3	5	6	3	4					
Afghanistan	Eradication (hectares)	5,480	5,351	2,316	3,810	9,672	7,348	2,692	3,760	355	750	406
Algeria	Eradication (plants)			868	340	204	2,721	7,470				
Algeria	Seizure poppy plants (in kg equivalents)	7,761	962	87	34	20.4	272.1			106		
Argentina	Seizure poppy plants (in kg equivalents)									0.2		
Armenia	Seizure poppy plants (in kg equivalents)							0.18	0.13	60		
Australia	Seizure poppy plants (in kg equivalents)									37	264	
Austria	Seizure poppy plants (in kg equivalents)	8.76	13.83		4.60	1.91	2.07	1.41		0.05	0.2	
Azerbaijan	Eradication (hectares)				2.26	0.21	0.40	0.45				
Azerbaijan	Eradication (plants)				201	2,628	34	284			49,154	
Bangladesh	Eradication (hectares)			8	22							

Country	Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Bangladesh	Seizure poppy plants (in kg equivalents)		145,021									
Belarus	Eradication (hectares)			14	52	26				92	157	
Belarus	Seizure poppy plants (in kg equivalents)				59		81	51		94	119	
Canada	Eradication (hectares)			7	7							
Canada	Eradication (plants)			60,000	60,000							
Canada	Seizure poppy plants (in kg equivalents)			6,600	9.3		7.3			85.9		
China	Eradication (hectares)									6		
Colombia	Eradication (hectares)	381	546	712	294	320	514	813	613	450	397	
Cyprus	Seizure poppy plants (in kg equivalents)								6			
Czechia	Seizure poppy plants (in kg equivalents)								40			
Ecuador	Eradication (plants)	74,555	115,580	128,653	22,100	2,170,900	1,797,966	2,023,385	183,573	1,207,147	279,074	
Ecuador	Seizure poppy plants (in kg equivalents)	7,456	11,558	12,865	2,210	185,490	75,765					
Egypt	Eradication (hectares)	121	98	222	1		3		98	105	60	
Georgia	Seizure poppy plants (in kg equivalents)							8		9		
Greece	Eradication (plants)					192	60	144	145	624	44	
Guatemala	Eradication (hectares)	536	1,345	918	1,490	590	2,568	1,197	430	45	803	

Country	Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Guatemala	Eradication (plants)									17,643,447	417,004,278	
Guatemala	Seizure poppy plants (in kg equivalents)	27,880,441	69,228,416	54,612,442			10,935,532	864,150				
Hungary	Seizure poppy plants (in kg equivalents)					1,502	2,152			1917		
India	Eradication (hectares)	624	2,420	3,052	5,746	1,332	865	1,636	3,461	2,875	3,076	
India	Seizure poppy plants (in kg equivalents)							3,770				
Iran (Islamic Republic of)	Eradication (hectares)			2		1	1	1		1	0.5	
Iran (Islamic Republic of)	Eradication (plants)					140,000	100,000	120,000		90,000	90,000	
Italy	Eradication (plants)			1,797	2,007	6,717						
Italy	Seizure poppy plants (in kg equivalents)					716	375	168	30	1,098		
Japan	Seizure poppy plants (in kg equivalents)	535	104	90	26	20	11					
Kazakhstan	Eradication (hectares)									0.2		
Kazakhstan	Eradication (plants)				1,692			2,254	19,510	15,515		
Kazakhstan	Seizure poppy plants (in kg equivalents)	68	127	105	90	30	2	8	298			
Kyrgyzstan	Seizure poppy plants (in kg equivalents)	102	344	58	200	399	147	63	55			
Lao PDR	Eradication (hectares)	575	651	579	662	707	397		809			
Latvia	Seizure poppy plants (in kg equivalents)	23	31		1	12	7	9	43			

Country	Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Lebanon	Eradication (hectares)		21	14	4		6	1				
Lithuania	Seizure poppy plants (in kg equivalents)	45	16									
Mexico	Eradication (hectares)	13,095	14,753	15,491	16,389	15,726	14,662	21,644	26,426	22,437	29,692	
Mexico	Seizure poppy plants (in kg equivalents)	7,263	7,964	9,335	10,101	9,572	10,209	14,812	17,948	16,401	20,187	
Myanmar	Eradication (hectares)	4,820	4,087	8,267	7,058	23,718	12,288	15,188	13,450	7,561	3,533	2,605
Nepal	Eradication (hectares)	21	35									
New Zealand	Seizure poppy plants (in kg equivalents)										0.2	
Oman	Eradication (hectares)						6					
Pakistan	Eradication (hectares)	0	105	68	1,053	592	568	1,010	605	1,470	169	
Pakistan	Seizure poppy plants (in kg equivalents)	81,675	25,550				4,650	5,976	4,576	1,023	4,789	
Peru	Eradication (hectares)	23	32	21								
Poland	Eradication (hectares)		9									
Portugal	Seizure poppy plants (in kg equivalents)				164		1.6	9.4			0.4	
Republic of Korea	Eradication (plants)						25,369					
Republic of Korea	Seizure poppy plants (in kg equivalents)			3,855					8,013	9,771	10,040	
Republic of Moldova	Eradication (plants)				32,413	11,255						

Country	Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Republic of Moldova	Seizure poppy plants (in kg equivalents)	79	26,075									
Russian Federation	Eradication (hectares)		3.3		1.4	0.6	0.9	1.1	0.6	0.8	2.4	
Russian Federation	Eradication (plants)							645				
Russian Federation	Seizure poppy plants (in kg equivalents)	2,799	2,807	2,575	4,273	3,196	2,216	1,438	1,043	270	375	
Spain	Seizure poppy plants (in kg equivalents)			13		10	30	219		0.02	0.5	
State of Palestine	Seizure poppy plants (in kg equivalents)				4.2	5.8	1.2	17.8				
Tajikistan	Eradication (plants)				13	5,400	103					
Thailand	Eradication (hectares)	285	201	278	208	205	264			319		
Ukraine	Eradication (hectares)	28		436			39		48	164		
Ukraine	Eradication (plants)			1,185,118		474,000	22,800,000					
Ukraine	Seizure poppy plants (in kg equivalents)	164,000		4,162		7.4		384	930			
Uzbekistan	Eradication (hectares)				1		1	0.3	0.3	0.3	0.3	
Uzbekistan	Seizure poppy plants (in kg equivalents)	138	687	896	413	330	336	406	205	863	188	
Viet Nam	Eradication (hectares)	99	31		38	35	25	19	18			

Source: United Nations Office on Drugs and Crime annual report questionnaire, government reports, reports of regional bodies, and international narcotics control strategy reports of the United States of America.

Global manufacture of heroin from global illicit opium production, 2007–2018 (tons)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total potential opium production	8,091	6,841	4,953	4,730	6,983	4,831	6,810	7,723	4,771	6,180	*10,420*	*7,790*
Potential opium not processed into heroin	3,078	2,360	1,680	1,728	3,400	1,850	2,600	2,450	1,360	2,510	*1,100-1,400*	*1,225-1,525*
Potential opium processed into heroin	5,012	4,481	3,273	3,002	3,583	2,981	4,210	5,273	3,411	3,670	*9,020-9,320*	*6,265-6,565*
Total potential heroin manufacture	686	600	427	383	467	377	555	542	327	388	*692-1042*	*487-737*

Notes: The calculation shows the potential amount of heroin that could have been manufactured out of the opium produced in a given year; it does not take into account changes in opium inventories, which may add to or reduce the amount of heroin entering the market in that year. Afghanistan and Myanmar are the only countries for which the proportion of potential opium production not converted into heroin within the country is estimated. For all other countries, for the purposes of this table, it is assumed that all opium produced is converted into heroin.

The amount of heroin produced from Afghan opium is calculated using two parameters that may change: (a) the amounts of opium consumed as raw opium in the region; and (b) the conversion ratio into heroin. The first parameter's estimate is based on consumption data in Afghanistan and neighbouring countries. For the second parameter, from 2005 to 2013, a conversion ratio of opium to morphine/heroin of 7:1 was used, based on interviews conducted with Afghan morphine/heroin "cooks", on an actual heroin production exercise conducted by two (illiterate) Afghan heroin "cooks", documented by the German Bundeskriminalamt in Afghanistan in 2003 (published in Bulletin on Narcotics, vol. LVII, Nos. 1 and 2, 2005, pp. 11–31), and United Nations Office on Drugs and Crime (UNODC) studies on the morphine content of Afghan opium (12.3 per cent over the period 2010–2012, down from 15 per cent over the period 2000–2003). Starting from 2014, a different approach to the conversion was adopted, reflecting updated information on morphine content and a different method for taking purity into account. The revised approach uses a ratio of 18.5 kg of opium for 1 kg of 100 per cent pure heroin base (see Afghanistan Opium Survey 2014, UNODC, November 2014). This translates into a ratio of 9.2–12.9 kg (range: 9–14 kg) of opium for 1 kg of export-quality heroin of 50–70 per cent purity. For more details, see "Afghanistan Opium Survey 2017 – Challenges to sustainable development, peace and security" (UNODC, May 2018).

The amount of heroin produced in Myanmar in 2018 was calculated by subtracting the estimated unprocessed opium for consumption from the total opium production and using a conversion factor of 10:1. The unprocessed opium in Myanmar was estimated to be 125 tons in 2018, based on the total unprocessed opium in East Asia (TOCTA EAP report, 2013) and considering the relative cultivation levels of Lao PDR and Myanmar. For further information, please refer to the Methodology chapter (section 4.3) of the Myanmar Opium Survey 2018 (UNODC, January 2019).

For countries other than Afghanistan, a "traditional" conversion ratio of opium to heroin of 10:1 is used. The ratios will be adjusted when improved information becomes available. Figures in italics are preliminary and may be revised when updated information becomes available.

Coca/cocaine

Global illicit cultivation of coca bush, 2007–2017 (hectares)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Bolivia (Plurinational State of)	28,900	30,500	30,900	31,000	27,200	25,300	23,000	20,400	20,200	23,100	24,500
Colombia [a]	99,000	81,000	73,000	62,000	64,000	48,000	48,000	69,000	96,000	146,000	171,000
Peru [b]	53,700	56,100	59,900	61,200	64,400						
Peru [c]					62,500	60,400	49,800	42,900	40,300	43,900	49,900
Total	**181,600**	**167,600**	**163,800**	**154,200**	**155,600 [d]**	**133,700**	**120,800**	**132,300**	**156,500**	**213,000**	**245,400**

Sources: Plurinational State of Bolivia: national illicit crop monitoring system supported by the United Nations Office on Drugs and Crime (UNODC). Colombia: national illicit crop monitoring system supported by UNODC. Peru: national illicit crop monitoring system supported by UNODC.

Note: Different area concepts and their effect on comparability were presented in the World Drug Report 2012 (United Nations publication, Sales No. E.12.XI.1) (p. 41-42). Efforts to improve the comparability of estimates between countries continue; since 2011 the net area under coca bush cultivation on the reference date of 31 December was estimated for Peru, in addition to Colombia. The estimate presented for the Plurinational State of Bolivia represents the area under coca cultivation as interpreted on satellite imagery.

[a] *Net area on 31 December.*
[b] *Figures represent the area under coca cultivation as interpreted on satellite imagery.*
[c] *Net area on 31 December, deducting fields eradicated after satellite imagery was taken.*
[d] *The global coca cultivation figure was calculated with the "area as interpreted on satellite imagery" for Peru in 2011.*

Reported eradication of coca bush, 2007–2017

	Method of eradication	Unit	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Bolivia (Plurinational State of)	manual	hectare	5,484	6,341	8,200	10,509	11,044	11,407	11,144	11,020	6,577	7,237
Colombia	manual	hectare	96,003	60,565	43,804	35,201	30,456	22,121	11,703	13,473	17,642	52,001
	spraying	hectare	133,496	104,772	101,940	103,302	100,549	47,052	55,532	36,494	0	0
Peru	manual	hectare	10,143	10,025	12,033	10,290	14,171	23,785	31,205	35,868	30,150	25,784
Ecuador	manual	hectare	12	6	3	14	..	..	..	..	..	..
		plants	152,000	57,765	3,870	55,030	122,656	41,996	15,874	45,266	20,896	10,100

Source: United Nations Office on Drugs and Crime annual report questionnaire and government reports.

Note: The totals for Bolivia (Plurinational State of) and Peru include voluntary and forced eradication. Reported eradication refers to the sum of all areas eradicated in a year, including repeated eradication of the same fields. Two dots indicate that data are not available.

Potential manufacture of 100 per cent pure cocaine, 2007–2017 (tons)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Bolivia (Plurinational State of)	*104*	*113*	..	..	..	..	..	..	..	..	..
Colombia	683	471	488	424	384	333	290	442	646	1,053	1,379
Peru	*290*	*302*	..	..	..	..	..	..	..	..	..
Total based on "old" conversion ratios[a]	**1,077**	**886**	**920**	**862**	**815**	**738**	**662**	**746**	**936**	**1,378**	**1,743**
Total based on "new" conversion ratios[a]	***1,317***	***1,143***	***1,188***	***1,134***	***1,090***	***997***	***902***	***943***	***1,124***	***1,586***	***1,976***

Sources: Plurinational State of Bolivia: own calculations based on coca leaf yield surveys by the United Nations Office on Drugs and Crime (UNODC) (Yungas de La Paz) and scientific studies by the Drug Enforcement Administration of the United States of America (Chapare). Colombia: UNODC/Government of Colombia. Peru: own calculations based on coca leaf to cocaine conversion ratio from scientific studies by the Drug Enforcement Administration. Detailed information on the ongoing revision of conversion ratios and cocaine laboratory efficiency is available in the World Drug Report 2010 (United Nations publication, Sales No. E.10.XI.13), p. 249.

[a] *Conversion of areas under coca cultivation into coca leaf and then into cocaine hydrochloride, taking yields, amounts of coca leaf used for licit purposes and cocaine laboratory efficiency into account.*

Notes: Owing to a lack of updated conversion factors in Bolivia (Plurinational State of) and Peru, no final estimates of the level of cocaine production can be provided.

With respect to data published in the World Drug Report 2016 (United Nations publication, Sales No. E.16.XI.7), the following amendments have been made: (a) data for Colombia (2005–2008) have been revised in order to ensure a consistent implementation of revisions to the methodology, affecting the way coca production is calculated, for the entire time series 2005–2015 (for details, see Colombia Coca Cultivation Survey Report 2014 (UNODC, 2015) and Colombia Survey of territories affected by illicit crops 2015, Annex 3 (UNODC 2016)); (b) totals for 2009–2012 based on "old" and "new" conversion ratios have been revised to rectify minor inaccuracies in data processing.

Figures in italics are subject to revision. Two dots indicate that data are not available. Information on estimation methodologies and definitions can be found in the online methodology section of the World Drug Report 2019.

Cannabis

Cannabis cultivation, production and eradication, latest year available from the period 2012–2017

Year	Country	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2012	Afghanistan	resin	outdoors	10,000			1,400		
2017	Albania	herb	indoors					7,766	
2016	Albania	herb	outdoors					2,536,288	5,205
2017	Albania	herb	outdoors					66,927	500
2014	Algeria	resin	outdoors					2,522	
2016	Armenia	herb	outdoors	0.50 [a]	0.50	0.00		757	20
2017	Armenia	herb	outdoors	0.50 [a]	0.50	0.00		2,547	21
2016	Australia	herb	indoors					31,266	408
2017	Australia	herb	indoors					78,310	433
2016	Australia	herb	outdoors					22,257	1,021
2017	Australia	herb	outdoors	1.00 [a]	1.00	0.00		31,431	948
2015	Austria	herb	outdoors	3.00 [a]	3.00	0.00			
2013	Azerbaijan	herb	outdoors	23.95 [a]	23.95	0.00	263.96	8,469	151
2014	Azerbaijan	herb	outdoors	17.50 [a]	17.50	0.00		14,889	195
2017	Azerbaijan	herb	outdoors	0.25 [a]		0.25		336,791	
2015	Bahamas	herb	outdoors					17,270	
2012	Bangladesh	herb	outdoors					39,848	
2013	Bangladesh	herb	outdoors					35,012	
2014	Bangladesh	herb	outdoors					35,988	
2015	Bangladesh	herb	outdoors					39,967	
2016	Bangladesh	herb	outdoors					47,104	
2016	Belarus	herb	indoors						28
2017	Belarus	herb	indoors						32
2016	Belarus	herb	oudoors		123.80				1,945
2017	Belarus	herb	oudoors		125.90				2,283
2015	Belgium	herb	indoors					345,518	1,164
2017	Belgium	herb	indoors					415,728	1,175
2015	Belgium	herb	outdoors					4,885	93
2017	Belgium	herb	outdoors					848	59
2015	Belize	herb	outdoors					50,897	
2016	Bolivia (Plurinational State of)	herb	outdoors		14.60				35

Year	Country	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2017	Bolivia (Plurinational State of)	herb	outdoors		14.00				52
2016	Bosnia and Herzegovina	herb	indoors		39.00				
2017	Bosnia and Herzegovina	herb	indoors					1	1
2016	Bosnia and Herzegovina	herb	outdoors		1,680.00				
2017	Bosnia and Herzegovina	herb	outdoors	0.02 [a]	0.02	0.00		539	53
2014	Brazil	herb	outdoors		44.01			1,364,316	
2017	Brazil	herb	outdoors		117.51			1,910,451	604
2015	Bulgaria	herb	indoors					323	
2015	Bulgaria	herb	outdoors				37.77	9,488	
2017	Central African Republic	herb	outdoors	130.00	60.00	55	10.00	250,000	22
2016	Chile	herb	indoors					26,988	2,740
2017	Chile	herb	indoors					50,414	2,408
2016	Chile	herb	outdoors					58,950	264
2017	Chile	herb	outdoors					194,694	202
2016	China	herb	outdoors		9.80			1,390,000	
2016	Colombia	herb	outdoors		135.00				
2017	Colombia	herb	outdoors		173.71				
2016	Costa Rica	herb	indoors					678	5
2017	Costa Rica	herb	indoors						2
2016	Costa Rica	herb	outdoors		17.59			2,122,244	201
2017	Costa Rica	herb	outdoors						215
2016	Côte d'Ivoire	herb	outdoors					5	
2017	Côte d'Ivoire	herb	outdoors		0.25				1
2016	Czechia	herb	indoors					53,549	229
2017	Czechia	herb	indoors					50,925	305
2016	Czechia	herb	outdoors					4,111	
2017	Czechia	herb	outdoors					3,467	
2015	Denmark	herb	indoors/ outdoors					14,560	97
2016	Denmark	herb	indoors/ outdoors					13,217	105
2017	Denmark	herb	indoors/ outdoors					34,801	65
2014	Dominican Republic	herb	outdoors	6.00 [a]	6.00	0.00	0.21	111	8
2016	Ecuador	herb	outdoors					224	34

Year	Country	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2017	Ecuador	herb	outdoors					397	10
2015	Egypt	herb/resin	outdoors		140.00				
2017	Egypt	herb/resin	outdoors		126.00				
2014	Eswatini	herb	outdoors	1,500.00	1,069.50	430.50		3,000,000	210
2017	Georgia	herb	indoors		0.01			186	91
2017	Georgia	herb	outdoors	0.02 [a]	0.02	0.00		93	19
2016	El Salvador	herb	outdoors			1.00		227	25
2014	France	herb	outdoors					158,592	837
2015	Germany	herb	indoors					135,925	786
2017	Germany	herb	indoors					85,226	573
2015	Germany	herb	outdoors					9,136	127
2017	Germany	herb	outdoors						95
2016	Greece	herb	indoors					16,554	
2017	Greece	herb	indoors					19,498	
2016	Greece	herb	oudoors					39,151	
2017	Greece	herb	oudoors					27,409	
2016	Guatemala	herb	outdoors		9.00			3,138,298	427
2017	Guatemala	herb	outdoors	3.50 [a]	3.81		1.61	6,033,345	150
2015	Guyana	herb	outdoors	20.00	9.40	10.60	1,000.00	419,700	19
2016	Honduras	herb	indoors					7	2
2016	Honduras	herb	outdoors					24,253	19
2017	Honduras	herb	outdoors	59.58 [a]	59.59	0.00			
2016	China, Hong Kong SAR	herb	indoors					329	1
2016	Hungary	herb	indoors					5,000	3
2016	Hungary	herb	outdoors					2,000	20
2013	Iceland	herb	indoors					6,652	323
2016	India	herb	outdoors		3,414.74				
2017	India	herb	outdoors		3,445.90			6,687,376	
2016	Indonesia	herb	outdoors	482.00 [a]	482.00	0.00			
2017	Indonesia	herb	outdoors	89.00 [a]	89.00	0.00		738,020	14
2016	Ireland	herb	indoors					7,273	
2017	Ireland	herb	indoors					9,046	50
2017	Italy	herb	indoors					56,125	1,161
2017	Italy	herb	outdoors					209,510	401

Year	Country	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2014	Italy	herb	indoors					51,534	639
2014	Italy	herb	outdoors					70,125	1,134
2012	Jamaica	herb	outdoors					456	382
2016	Kazakhstan	herb	outdoors	18.00 [a]	18.00	0.00		170,000	202
2017	Kazakhstan	herb	outdoors	12.30 [a]	12.30	0.00		930,774	91
2016	Kenya	herb	outdoors	12.00				8,747	46
2017	Kenya	herb	outdoors		0.10			4,662	
2015	Kyrgyzstan	herb	outdoors	5,014.00		5,014.00			
2016	Latvia	herb	indoors					557	35
2017	Latvia	herb	indoors					798	34
2016	Latvia	herb	outdoors					78	6
2017	Latvia	herb	outdoors					66	15
2015	Lebanon	herb	outdoors	3,500.00		3,500.00			
2017	Lebanon	herb	outdoors	40,772.00					
2016	Lithuania	herb	indoors						4
2017	Lithuania	herb	indoors						8
2017	Lithuania	herb	outdoors						7
2015	Madagascar	herb	outdoors		11.00			21,325	
2017	Madagascar	herb	outdoors		9.00			57,708	
2013	Malta	herb	indoors					27	
2016	Mexico	herb	outdoors		5,478.42		6,574.1		38,432
2017	Mexico	herb	outdoors		4,193.34		5,032.0		34,523
2013	Mongolia	herb	outdoors	15,000.00	4,000.00	11,000.00		4,000	4,000
2016	Morocco	plant	outdoors	47,000.00	395.00	46,605.00			
2017	Morocco	plant	outdoors	47,500.00	523.00	46,977.00			
2016	Morocco	herb	outdoors				35,652.83		
2017	Morocco	herb	outdoors				35,702.90		
2016	Morocco	resin	outdoors				713.00		
2017	Morocco	resin	outdoors				714.06		
2014	Myanmar	herb	outdoors	15.00	10.00	5.00			3
2016	Netherlands	herb	indoors					994,068	5,856
2017	Netherlands	herb	indoors					883,163	5,538
2016	New Zealand	herb	indoors					18,903	607
2017	New Zealand	herb	indoors					19,992	

Year	Country	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2016	New Zealand	herb	outdoors					104,725	
2017	New Zealand	herb	outdoors					19,559	
2014	Nicaragua	herb	outdoors		0.30		1,507.00	3,014	30
2016	Nigeria	herb	outdoors		718.78				65
2017	Nigeria	herb	outdoors		317.12				
2015	Norway	herb	indoors		0.04			4,000	30
2013	Panama	herb	indoors	0.50 [a]	0.50	0.00		37	2
2013	Panama	herb	outdoors	10.50 [a]	10.50	0.00		78,633	2
2016	Paraguay	plant	outdoors	1,298.50 [a]	1,298.50	0.00		5,656,266	4
2017	Paraguay	plant	outdoors		1,462.00			36,550,000	
2016	Paraguay	herb	outdoors				1,298.50		
2016	Paraguay	resin	outdoors				1.15		
2016	Peru	herb	outdoors		87.83			1,429,749	
2017	Peru	herb	outdoors		61.30			4,671,387	47
2016	Philippines	herb	outdoors		8.67			24,635,153	337
2017	Philippines	herb	outdoors		4.82			221,035	27
2016	Poland	herb	indoors					146,755	1,403
2017	Poland	herb	indoors					448	10
2016	Poland	herb	indoors/ outdoors					4,585	219
2017	Poland	herb	indoors/ outdoors						54
2017	Portugal	herb	indoors/ outdoors					22,910	158
2013	Republic of Korea	herb	outdoors					8,072	
2014	Republic of Moldova	herb	outdoors	100.00	59.00	41.00	10,000.00	200,548	
2017	Republic of Moldova	herb	outdoors	0.15	2.57			257,236	
2014	Republic of Moldova	herb	indoors		41.00				
2016	Romania	herb	indoors					1,433	41
2017	Romania	herb	indoors					1,875	46
2016	Romania	herb	outdoors		6.99				42
2017	Romania	herb	outdoors		1.90			4,905	32
2016	Russian Federation	herb	indoors		0.66				788
2017	Russian Federation	herb	indoors		0.87				1,990
2016	Russian Federation	herb	outdoors	7.61 [a]	7.61	0.00	68.64		1,143

Year	Country	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2017	Russian Federation	herb	outdoors	159.00 [a]	159.00	0.00	30.07		5,379
2015	Serbia	herb	outdoors				0.05		
2013	Sierra Leone	herb	outdoors	190.00		190.00		190	3
2016	Slovakia	herb	indoors					385	
2017	Slovakia	herb	outdoors	2.00 [a]	2.00	0.00		2,299	31
2014	Slovenia	herb	indoors					9,223	118
2017	Slovenia	herb	indoors					10,259	78
2014	Slovenia	herb	outdoors					1,844	
2015	Spain	herb	indoors					244,772	108
2015	Spain	herb	outdoors					135,074	44
2014	Sudan	herb	outdoors	8.00 [a]	8.00	0.00	345.00		
2017	Sudan	herb	outdoors	1,250.00 [a]	1,250.00	0.00	205.00		100
2014	Sweden	herb	indoors					10,000	56
2015	Sweden	herb	outdoors				182.00		
2017	Sweden	herb	outdoors					5,100	44
2016	Switzerland	herb	indoors					11,386	83
2017	Switzerland	herb	indoors					71,750	
2012	Tajikistan	herb	outdoors					2,180,121	
2016	Thailand	herb	outdoors	1.00 [a]	1.00	0.00	7.50		1
2015	Trinidad and Tobago	herb	outdoors		0.31			375,925	58
2012	Uganda	herb	outdoors	150.00	88.00	62.00			5
2016	Ukraine	herb	outdoors	91.00 [a]	91.00	0.00			
2017	Ukraine	herb	outdoors		166.90			4,600,000	
2016	United States of America	herb	indoors					406,125	1,865
2017	United States of America	herb	indoors					303,654	1,399
2016	United States of America	herb	outdoors					4,940,596	5,513
2017	United States of America	herb	outdoors					3,078,418	4,062
2016	Uruguay	herb	indoors					661	
2017	Uruguay	herb	indoors					1,926	
2016	Uzbekistan	herb	outdoors	0.20 [a]	0.20	0.00			586
2017	Uzbekistan	herb	outdoors	0.20 [a]	0.20	0.00			618
2015	Viet Nam	herb	oudoors		1.00				

Source: United Nations Office on Drugs and Crime annual report questionnaire, government reports and and international narcotics control strategy reports of the United States of America.

[a] *Area identified by the authorities for eradication.*

GLOSSARY

amphetamine-type stimulants — a group of substances composed of synthetic stimulants controlled under the Convention on Psychotropic Substances of 1971 and from the group of substances called amphetamines, which includes amphetamine, methamphetamine, methcathinone and the "ecstasy"-group substances (3,4-methylenedioxymethamphetamine (MDMA) and its analogues).

amphetamines — a group of amphetamine-type stimulants that includes amphetamine and methamphetamine.

annual prevalence — the total number of people of a given age range who have used a given drug at least once in the past year, divided by the number of people of the given age range, and expressed as a percentage.

coca paste (or coca base) — an extract of the leaves of the coca bush. Purification of coca paste yields cocaine (base and hydrochloride).

"crack" cocaine — cocaine base obtained from cocaine hydrochloride through conversion processes to make it suitable for smoking.

cocaine salt — cocaine hydrochloride.

drug use — use of controlled psychoactive substances for non-medical and non-scientific purposes, unless otherwise specified.

fentanyls — fentanyl and its analogues.

new psychoactive substances — substances of abuse, either in a pure form or a preparation, that are not controlled under the Single Convention on Narcotic Drugs of 1961 or the 1971 Convention, but that may pose a public health threat. In this context, the term "new" does not necessarily refer to new inventions but to substances that have recently become available.

opiates — a subset of opioids comprising the various products derived from the opium poppy plant, including opium, morphine and heroin.

opioids — a generic term that refers both to opiates and their synthetic analogues (mainly prescription or pharmaceutical opioids) and compounds synthesized in the body.

problem drug users — people who engage in the high-risk consumption of drugs. For example, people who inject drugs, people who use drugs on a daily basis and/or people diagnosed with drug use disorders (harmful use or drug dependence), based on clinical criteria as contained in the *Diagnostic and Statistical Manual of Mental Disorders* (fifth edition) of the American Psychiatric Association, or the *International Classification of Diseases and Related Health Problems* (tenth revision) of WHO.

people who suffer from drug use disorders/people with drug use disorders — a subset of people who use drugs. Harmful use of substances and dependence are features of drug use disorders. People with drug use disorders need treatment, health and social care and rehabilitation.

harmful use of substances — defined in the *International Statistical Classification of Diseases and Related Health Problems* (tenth revision) as a pattern of use that causes damage to physical or mental health.

dependence — defined in the *International Statistical Classification of Diseases and Related Health Problems* (tenth revision) as a cluster of physiological, behavioural and cognitive phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state.

substance or drug use disorders — referred to in the *Diagnostic and Statistical Manual of Mental Disorders* (fifth edition) as patterns of symptoms resulting from the repeated use of a substance despite experiencing problems or impairment in daily life as a result of using substances. Depending on the number of symptoms identified, substance use disorder may be mild, moderate or severe.

prevention of drug use and treatment of drug use disorders — the aim of "prevention of drug use" is to prevent or delay the initiation of drug use, as well as the transition to drug use disorders. Once a person develops a drug use disorder, treatment, care and rehabilitation are needed

REGIONAL GROUPINGS

The *World Drug Report* uses a number of regional and subregional designations. These are not official designations, and are defined as follows:

- East Africa: Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Rwanda, Seychelles, Somalia, South Sudan, Uganda, United Republic of Tanzania and Mayotte
- North Africa: Algeria, Egypt, Libya, Morocco, Sudan and Tunisia
- Southern Africa: Angola, Botswana, Eswatini, Lesotho, Malawi, Mozambique, Namibia, South Africa, Zambia, Zimbabwe and Reunion
- West and Central Africa: Benin, Burkina Faso, Cabo Verde, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo and Saint Helena
- Caribbean: Antigua and Barbuda, Bahamas, Barbados, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, Anguilla, Aruba, Bonaire, Netherlands, British Virgin Islands, Cayman Islands, Curaçao, Guadeloupe, Martinique, Montserrat, Puerto Rico, Saba, Netherlands, Sint Eustatius, Netherlands, Sint Maarten, Turks and Caicos Islands and United States Virgin Islands
- Central America: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama
- North America: Canada, Mexico, United States of America, Bermuda, Greenland and Saint-Pierre and Miquelon
- South America: Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela (Bolivarian Republic of) and Falkland Islands (Malvinas)
- Central Asia and Transcaucasia: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan
- East and South-East Asia: Brunei Darussalam, Cambodia, China, Democratic People's Republic of Korea, Indonesia, Japan, Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Singapore, Thailand, Timor-Leste, Viet Nam, Hong Kong, China, Macao, China, and Taiwan Province of China
- South-West Asia: Afghanistan, Iran (Islamic Republic of) and Pakistan
- Near and Middle East: Bahrain, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, State of Palestine, Syrian Arab Republic, United Arab Emirates and Yemen
- South Asia: Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka
- Eastern Europe: Belarus, Republic of Moldova, Russian Federation and Ukraine
- South-Eastern Europe: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, North Macedonia, Romania, Serbia, Turkey and Kosovo
- Western and Central Europe: Andorra, Austria, Belgium, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland, Faroe Islands, Gibraltar and Holy See

Oceania (comprising four subregions):

- Australia and New Zealand: Australia and New Zealand
- Polynesia: Cook Islands, Niue, Samoa, Tonga, Tuvalu, French Polynesia, Tokelau and Wallis and Futuna Islands
- Melanesia: Fiji, Papua New Guinea, Solomon Islands, Vanuatu and New Caledonia
- Micronesia: Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Palau, Guam and Northern Mariana Islands

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The *World Drug Report 2019* is again presented in five separate parts that divide the wealth of information and analysis contained in the report into individual reader-friendly booklets in which drugs are grouped by their psychopharmacological effect for the first time in the report's history.

Booklet 1 provides a summary of the four subsequent booklets by reviewing their key findings and highlighting policy implications based on their conclusions. Booklet 2 contains a global overview of the latest estimates of and trends in the supply, use and health consequences of drugs. Booklet 3 looks at recent trends in the market for depressants (including opioids, sedatives, tranquillizers and hypnotics), while Booklet 4 deals with recent trends in the market for stimulants (including cocaine, amphetamine-type stimulants and new psychoactive substances). Booklet 5 contains a review of recent trends in the market for cannabis and for hallucinogens. The section on cannabis also includes a review of the latest developments in the jurisdictions that have adopted measures allowing the non-medical use of cannabis.

As in previous years, the *World Drug Report 2019* is aimed at improving the understanding of the world drug problem and contributing towards fostering greater international cooperation for countering its impact on health, governance and security.

The statistical annex is published on the UNODC website: https://www.unodc.org/wdr2019

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